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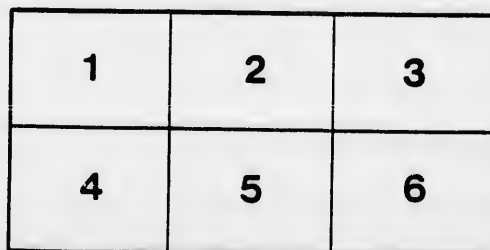
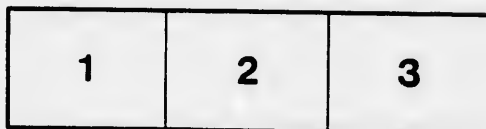
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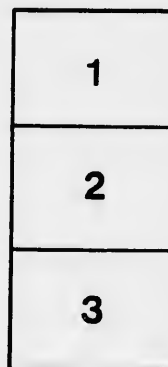
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RESULTS
OF
METEOROLOGICAL OBSERVATIONS

MADE AT THE
MAGNETICAL OBSERVATORY, TORONTO,
CANADA WEST,
DURING THE YEARS 1860, 1861, & 1862.



TORONTO:
PRINTED BY W. C. CHEWETT & CO., 17 & 19 KING STREET EAST.
1864.

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INTRODUCTION.

THE Toronto Magnetical and Meteorological Observatory is situated in the grounds of the University of Toronto, in latitude $43^{\circ} 39'.4$ N., longitude $5^{\text{h}} 17^{\text{m}} 33^{\text{s}}$ W., 108 feet above Lake Ontario, and approximately 342 feet above the level of the sea.

The circumstances attending the establishment of the Observatory by the British Government in 1839-'40, and its transfer to the care of the Provincial Government in 1853, have been described in the introduction to the "Results of Meteorological Observations for the years 1854-'59."

The duties of the Observatory are carried on by the Director, G. T. Kingston, M.A., assisted by Messrs. Walker, Menzies, and Stewart, formerly non-commissioned officers of the Royal Artillery, and observers under the Imperial Government, together with Mr. W. F. Davidson, an additional observer who has been connected with the establishment since the commencement of 1857.

The instruments and the system of observation during the years 1860-'62 continued the same as in the previous years. The regular observation hours for reading the barometer, standard thermometer, and wet-bulb thermometer were 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight; excepting on Sundays, Christmas Day, and Good Friday, when these instruments were read at 6 A.M. and 2 P.M. only. These latter readings, though recorded in the daily register, are not included in the hourly means of the month. The hygrometric tables employed for deducing the pressure of vapour and the relative humidity were those calculated by Professor Coffin, of Lafayette College, Pennsylvania, from the more recent experiments of Regnault. The differences between the barometric pressures and the pressures of vapour have been recorded, in conformity with ordinary usage, as the "Pressures of Dry Air."

At the regular observation hours a record was always made of the general appearance of the sky, including the form, distribution, and motions of the clouds.

The maximum self-registering thermometer was read at 6 A.M., the reading being entered for the meteorological day which terminates at that hour. The minimum self-registering thermometer was read at 2 P.M., the entry being made as belonging to the actual day.

From Robinson's anemometer a continuous record was kept of the direction of the wind during each hour of every day, (Sundays and holidays included,) and its mean velocity, or number of miles passed over by the wind during the hour, the space of each hour being always designated by the point of time with which it commenced. For each of the six observation hours, the instantaneous direction and approximate velocity at the hour were also recorded, such velocity being the distance travelled by the wind during the half-hours preceeding and following the hour of observation.

The resultant direction and resultant velocity for any day or other group of hours were calculated from the directions and velocities in the several hours composing the group, by means of the formulæ

$$\tan \bar{\theta} = \frac{\sum (V \sin \theta)}{\sum (V \cos \theta)}; \quad \bar{V} = \frac{\sum (V \cos \theta)}{n \cos \bar{\theta}};$$

where θ represents the angular distance of the point from which the wind blew during any hour, measured from the north towards the right, V the corresponding velocity, $\bar{\theta}$ and \bar{V} the values of θ and V corresponding to the resultant, and n the number of hours in the group under consideration.

The depth of rain or snow recorded for any day was that which fell between 6 A.M. that commenced and 6 A.M. that terminated the day in question.

The rain-gauge in ordinary use gives only the amount of rain that falls between two successive examinations, and therefore affords no means of determining the distribution of the rain among the several hours of the day. To supply this defect, an hourly rain-gauge, of which the following is a description, was constructed and brought into use in April, 1861.

The rain is received, in the first instance, by an ordinary gauge placed on the summit of a chimney, with its orifice at a height of 19 feet above the ground, and sufficiently removed from the influence of eddy winds. The rain is thence conveyed by a pipe into the room beneath, where it is discharged into a small copper cylinder, two inches in diameter, which, by means of a band connected with a clock, is made to revolve about its axis, placed vertically, once in twenty-four hours. From the lower part of the copper cylinder a tube extends slightly inclining outwards from the horizontal, whose outer extremity, bent downwards, is directed successively into twenty-four equal compartments of a large zinc vessel, bounded by two cylindrical surfaces, whose common axis coincides with that of the small copper distributing cylinder. The diameters of the bounding cylindrical surfaces of the vessel are 32 inches and 20 inches respectively, and its height 14 inches. The compartments are separated by thin vertical partitions radiating from the common axis, and are each furnished with a small discharge pipe by which the rain may be drawn off and measured at the convenience of the observer. By this arrangement a record can be made of the depth of rain that falls within each separate hour as long as the instrument is in operation. The time of its action however is limited, to those parts of the year when severe frosts are not likely to occur, namely, from April to October, inclusive, with sometimes a portion of November.

GENERAL METEOROLOGICAL REGISTER.

In the monthly abstracts on pp. 1 to 36, the numbers entered in the six columns headed "Daily Means," are the daily averages of the observations made at the six observation hours, and are uncorrected for diurnal variation. The resultant directions and velocities and the mean velocities of the wind are derived from the directions and velocities during each of the twenty-four hours. The numbers at the bases of the columns of daily means, as well as those of the mean velocities of the wind and the extremes of temperature, are the averages of the numbers under which they stand, Sundays and other holidays being excluded only in the first six columns. Under the columns containing the daily resultant directions and velocities of the wind, are placed the monthly resultant direction and resultant velocity, and under the columns for the rain and snow, are entered the sums of the numbers which these columns respectively contain. In the rain or snow columns the occurrence of a star (*) indicates that the amount was too small for measurement, or the duration less than half an hour. In the column for rain and melted snow combined, ten inches of snow are reckoned as equivalent to one inch of rain.

REMARKS ON THE TABLES.

TEMPERATURE TABLES.

The normals referred to in the temperature tables (Tables I. to XV.) are the normal temperatures proper to Toronto in its actual circumstances. They have been deduced from the table of twenty-four-hour daily means (a) given by General Sabine in his paper on the periodic and non-periodic variations of temperature at Toronto, by applying the diurnal variations (b) contained (*though with contrary signs,*) in the same paper. The normals, thus computed, are used as standards of reference, the abnormal variations being entered in the daily register side by side with the several observed temperatures.

Table I. gives the monthly means of the temperature of the air at each of the six observation hours in the three years, 1860, 1861, and 1862. The numbers in the final column of each month are the means of those in the six preceding columns, uncorrected for diurnal variation.

The final columns of the several monthly parts of Table I. are exhibited in one view in Table II., which gives the monthly and annual means of temperature furnished by six daily observations for each of the three years, together with the averages of the monthly and annual means for the three years. For the purpose of comparison, the normal monthly means derived from the same six observation hours are also introduced, together with the monthly and annual means for the period 1854 to 1859.

The numbers at the foot of each of the monthly parts of Table I. are collected in Table III. which shews, on the average of the three years, 1860 to 1862, the monthly means of temperature at each of the six observation hours.

From Table IV. it appears, from the observations of nine years, that the observed temperature is in excess or defect from the normal proper to the day and hour by a difference whose mean value is $6^{\circ}.5$. This abnormal digression has an annual period, being greater in the cold and less in the warm months, its value in February being about twice as great as in August. The quarterly averages in the two series are as follows:

	Winter.	Spring.	Summer.	Autumn.
1860-62	8.5	6.0	4.6	5.5
1854-59	9.4	6.2	5.2	5.9
1854-62	9.1	6.1	5.0	5.8

In Table V. a comparison is made for each month between the abnormal digressions of temperature, without regard to sign, at the six observation hours.

(a) Philosophical Transactions for 1853, pp. 154, 159. (b) Philosophical Transactions for 1853, pp. 145, 146.

Having regard to the annual means alone, there appears in both series to be but little difference between the abnormal digressions at the different hours, the greatest difference being only $0^{\circ}.4$ in the earlier and $0^{\circ}.3$ in the later series; an excess as compared with other hours occurring, in both series, at 6 A.M. The observations of the years 1860-62 corroborate the statement made in the preceding volume respecting an annual period in the position of the hours of greater abnormal digression. The variations at 10^{h} , 12^{h} , 18^{h} , and 20^{h} , in the six winter months, (October to March) are found in most instances to be greater, number for number, than at 2^{h} and 4^{h} ; while in the six summer months this relation is reversed. From the comparison of the half-yearly means at each hour and for the two groups of hours given in Table VI., there appears in both series to be in winter a greater uncertainty respecting the temperature during the night and morning than during the hours of the day, whereas in summer the warmer hours are more subject to irregularity. In other words, the warm hours are most liable to disturbances of temperature in the warm months, and the cold hours in the cold months; the differences between the average extent of a disturbance (if it be so called) in the two groups of hours being about $0^{\circ}.8$ in both half-years.

It has been seen in the two preceding tables that the average abnormal digressions of the observed temperatures, considered singly, are systematically greater, for a given month, at certain hours, and that the hours of greater digression have themselves an annual periodic movement. This circumstance suggests the enquiry whether the digressions of the monthly means in *single years* from the means derived from a series of years are affected by changes of a like periodic character. With a view to this question Table VII. has been formed, giving the probable variability of the monthly means for each month, and for each of the six observation hours. The number expressing the probable variability for any month and hour was computed from the squares of the differences between the means for that month and hour in each single year, from 1854 to 1862, and the mean for the same month and hour on the average of the nine years. The three final columns contain the half-yearly and yearly averages of the variabilities for each of the six hours, and the three lowest lines give the monthly, half-yearly, and yearly averages of the variabilities for 2^{h} and 4^{h} , for 10^{h} to 20^{h} , and for the six hours collectively.

In the diurnal period the progression is regular on the average of the year, as well as in each half-year. For the whole year 2 P.M. is the most variable hour with respect to its monthly means, and 10 P.M. the most regular hour. In the summer half-year 2 P.M. is also the most variable hour, but the most regular hour is midnight, while in the winter half-year the most variable hour is 6 A.M. and the most regular hour 4 P.M.

With respect to the annual period the average variability in the six winter months is about 50 per cent. greater than in the summer months; the average variability also at 2^{h} and 4^{h} , namely, at the warmer hours, is greater in each of the six summer months than the average variability at the hours 10^{h} , 12^{h} , 18^{h} , and 20^{h} . The reverse of this takes place in January, February, and March, but not in October, November, and December, when the variability is very slightly in excess at the warmer hours. But comparing the winter and summer averages for the above named combinations of hours, it is found, as in the case of the abnormal variations, that in the warm months the temperature is most variable at the warm hours, and that in the cold months the temperature at the colder hours is most variable.

The resemblance, with respect to the relation just described, between the abnormal variations of single

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observations and the probable variability of monthly means in a single year, is best seen by placing the results together as follows :

	Mean Abnormal Variation.				Probable Variability.			
	^h 2	^h and 4	^h 10	^h ... 20	^h 2	^h and 4	^h 10	^h ... 20
Winter	7.22	<	7.99		2.41	<	2.69	
Summer.....	5.84	>	5.01		1.99	>	1.48	
Year	6.50	>	6.50		2.20	>	2.03	

In Tables VIII. and IX. the abnormal variations of temperature, with their proper signs, are arranged according to the eight principal points of the direction of the wind. In Table VIII. the half-yearly and yearly means are given for the three years separately as well as collectively. It is seen that with a N.E. wind and a west wind the temperature was above the normal in some half-years and below it in others, without reference to the season; with east and S.E. winds the temperature was above the normal in each winter and below the normal in each summer, and with winds from S. and S.W. the temperature was above the normal in each separate half-year.

Table IX. gives the monthly and yearly means of the abnormal digressions of temperature for the several winds, on the average of the three years, together with the yearly means from 1853 to 1859. The variations which accompany the N.E. and west winds have different signs in the two series. This contrariety of sign is partly occasioned by the proximity of these points to the line, which, in the earlier series, was found to separate the relatively warm from the relatively cold winds. Another cause of this disagreement is the fact that many winds which were considered, in the later series, as belonging to the N.E. group, blew from points that were included in the N.N.E. and E.N.E. groups in the earlier series. A similar remark is applicable to the west winds.

In Table X. a classification has been made of the larger deviations of temperature, including all those cases during the ten years, 1853 to 1862, wherein the observed temperature differed to the extent of 15° and upwards from the normal proper to the day and hour. It will be seen, taking one month with another, that the excessively low temperatures are more than twice as numerous, as well as of greater average deviation, than those which are relatively high.

The general excess in the number of low temperatures is due to their large preponderance in the winter months; for in summer and autumn the high temperatures exceed in number the low temperatures. The quarterly and annual numbers, and average extent of the extraordinary deviations, of both signs, as well as when considered without regard to sign, are as follows :

	Winter.	Spring.	Summer.	Autumn.	Year.
High temperatures—Number	176	91	68	110	445
Average deviation...	18.2	17.6	16.7	18.9	18.0
Low temperatures—Number	645	184	29	52	910
Average deviation...	21.9	19.6	17.0	17.7	21.0
Both signs .....—Number	821	275	97	162	1355
Average deviation...	21.1	18.9	16.8	18.5	20.0

In Table XI. the temperatures that exceeded the normal to the extent of 15° and upwards during the ten years, 1853 to 1862, are classified according to the simultaneous direction of the wind.

In the four columns marked (1) are entered, for each of the four seasons, the absolute number of times that each wind accompanied an excessively high temperature. Now as some winds, other things being the same, are more numerous than others, it is necessary that the numbers in (1) should be divided by numbers proportional to the relative frequency of the several winds, without reference to temperature, during the same period of ten years. The requisite divisors, derived from Table LXVI,* are contained in the four columns marked (2). The quotients arising from the division of the numbers in (1) by those in (2), and which are entered in (3), are expressed severally in terms of their respective means for all winds in column (4).

The cases embraced in the ten years are not sufficiently numerous to yield very decided results; but as far as they go, they shew that with excessively high temperatures the south and S.S.E. winds are most frequent in winter, the S.S.W. and S.W. winds in spring and autumn, while in summer the west and W.S.W. winds most commonly accompany the excessively high temperatures.

Table XII. shews the results similarly obtained for the excessively low temperatures.

In Table XIII. are given, for each month and for each of the three years, the mean changes in the temperature, without regard to sign, that take place in 24 hours, between 6 A.M. and 6 A.M. on consecutive days. Taking the three years together, the average change of temperature in 24 hours is 6°.1, the greatest change (9°.6,) occurring in February, and the least (4°.1,) in July. The quarterly means for the nine years, 1854 to 1862, are 9°.13 in winter, 5°.27 in spring, 4°.07 in summer, and 6°.50 in autumn; the general annual mean for the nine years being 6°.25.

In Table XIV. the mean diurnal changes of temperature, with their proper signs, are arranged according to the resultant direction of the wind during the day in which the change took place.

It is seen that with a resultant wind from N.W. or W., the temperature is lowered in every month, and that with a resultant wind from any other point the temperature is raised on the average of the year as well as in most months separately. The exceptions may be traced to the circumstance that the resultants in certain directions are not sufficiently numerous in some months to allow the effect of accidental anomalies to be overpowered and rendered inappreciable.

In Table XV. the highest and lowest temperatures that occurred in each month are given for each year separately, as well as for the average of the three years, 1860 to 1862, accompanied by the corresponding averages for the six previous years, 1854 to 1859.

* TABLE LXVI.

Relative frequency of the several winds, including calms, in each of the four quarters, for the period 1853-'62—(See pages xvi. and 65.)

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.
WINTER.....	1.18	0.88	0.87	0.75	0.85	0.40	0.23	0.21	0.24	0.71	1.46	2.20	1.97	1.31	1.23	1.40	0.99
SPRING.....	1.03	0.63	0.76	1.45	1.73	0.75	0.47	0.42	0.66	1.01	0.88	0.79	1.13	1.45	1.54	1.51	0.79
SUMMER.....	1.01	0.67	0.62	0.98	1.34	0.78	0.58	0.72	1.29	1.53	0.97	0.57	0.79	1.06	1.41	1.57	1.11
AUTUMN.....	1.07	0.77	0.77	1.02	1.13	0.56	0.42	0.48	0.74	1.14	1.15	1.23	1.26	1.37	1.21	1.25	1.43

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BAROMETRIC TABLES.

The means or approximate normals employed as standards of comparison in the barometric tables (Tables XVI. to XXVI.) are the hourly means in each month, derived from the observations of eighteen years.

Table XVI. gives the monthly means of the barometer corrected to temperature 32° Fahr., at each of the six observation hours, in the years 1860, '61, and '62. The final columns of each monthly part of this table, which contain the means of the six preceding columns, are exhibited in one view by Table XVII; while in Table XVIII. are collected the hourly means at the foot of each monthly part of Table XVI.

Table XIX. shows the monthly averages of the extent of the barometric abnormal oscillations. The numbers whose averages are given in this table are the differences, without regard to sign, between the observed height of the barometer and the assumed normal proper to the month and hour.

The annual distribution is in general accordance with that given in the comparative table for the period 1854 to 1859, the quarterly means for the two series being as follows :

	Spring.	Summer.	Autumn.	Winter.
1860-62	0.191	0.128	0.175	0.234
1854-59	0.190	0.122	0.191	0.230
1854-62	0.190	0.124	0.186	0.231

It thence appears that the extent of the barometric oscillations in winter is nearly twice as great as in summer, and that in the spring and autumn the oscillations are nearly equal.

In Table XX. are exhibited the mean abnormal variations of the barometric pressure in the different hours. On the average of the year, although the range in the extent of the abnormal digressions is small the progression is regular for the three years, 1860-'62, as well as for the six preceding years; the most disturbed hour being 8 A.M. and the most tranquil hour 10 P.M. A somewhat similar conclusion results from Table XXI., in which is given, for each month and hour, the probable variability of an hourly mean in a single year, computed from the squares of the differences between the hourly means of any month in each year, from 1854 to 1862, and the average for the same hour and month derived from nine years. By comparing the quarterly and yearly means of the numbers in Table XXI. with those of the abnormal variations for the same nine years, it is seen that the progression, as respects the hours of greater and less barometric disturbance, unlike that which has been noticed with regard to the disturbances of temperature, is not subject to any well marked change of character in the different seasons. The quarterly and yearly means are contained in the annexed table.

MEAN ABNORMAL VARIATIONS.						MEANS OF PROBABLE VARIABILITIES.				
QUARTERS.						QUARTERS.				
	Winter.	Spring.	Summer.	Autumn.	Year.	Winter.	Spring.	Summer.	Autumn.	Year.
h										
2	.236	.194	.127	.188	.186	.0382	.0416	.0311	.0394	.0376
4	.232	.189	.122	.182	.181	.0366	.0409	.0299	.0381	.0364
1.51	0.79									
10	.226	.182	.115	.181	.176	.0348	.0391	.0294	.0389	.0355
12	.226	.184	.116	.184	.177	.0348	.0396	.0294	.0401	.0360
1.57	1.11									
18	.233	.194	.131	.189	.187	.0408	.0426	.0337	.0407	.0395
1.25	1.43									
20	.235	.199	.130	.192	.189	.0415	.0432	.0332	.0402	.0395

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N.N.W.	Colima.
1.40	0.99
1.51	0.79
1.57	1.11
1.25	1.43

Tables XXII. and XXIII. give the mean abnormal variations of the barometer that accompany winds from the eight principal points.

From comparing the yearly means derived from the three years, 1860-'62, with those for the seven years, 1853-'59, it appears that the general character of the two results are the same, and the means nearly identical in some cases. In both series the barometer is above the normal when the wind is from N., N.E., E., S.E., and S., and below the normal when the wind is from S.W., W., and N.W.; the greatest elevation accompanying a north wind and the greatest depression occurring with a S.W. wind. The half-yearly means shew, as far as the observations of three years are competent to shew it, that the south wind accompanies a low barometer in winter and a high barometer in summer, and that the reverse is the case with the N.W. wind. In judging of the resemblance between the earlier and later series, it is to be remembered that in the more recent series, many winds are included among the eight principal points, which, for the series 1853-'59, were reckoned as belonging to the intermediate points.

Tables XXIV. and XXV. are derived from the differences between the corrected readings of the barometer at 6 A.M. on consecutive days, Sundays and other holidays being included. The results in Table XXIV. are obtained by dividing the aggregate change, without regard to sign, in each month by the number of changes, *i. e.* by the number of days in the month.

The correspondence in the two series is on the whole tolerably close, the maximum occurring in either January or February, and the minimum in either July or August. Combining the two series, the greatest monthly average change in twenty-four hours is 0.281 in January, and the least 0.121 in July, the annual mean being 0.198. The quarterly means are as follows:

	Winter.	Spring.	Summer.	Autumn.
1860 to 1862	0.273	0.197	0.137	0.192
1854 to 1859	0.269	0.211	0.121	0.189
1854 to 1862	0.270	0.206	0.126	0.190

In Table XXV. are given the quotients arising from the division of the algebraical sum of the changes that accompanied each resultant wind by the number of the resultant winds in the same month and direction. The numbers in the final column are derived from the sums and numbers of the changes corresponding to each wind, and will not therefore be generally equal to the arithmetic means of the numbers in the monthly columns. From both series it is seen that the barometer rises on the average of the year when the resultant wind is from N., N.W., and W., and that it falls with a resultant wind from other quarters. It is also found, both from Table XXV. and the analogous table in the volume for 1854-59, that these statements hold good in nearly every month taken separately. A comparison of the signs of Tables XXV. and XXIII. corresponding to the several winds, brings out the fact that the same winds that accompany a relatively *high* barometer are for the most part those that, as resultants, accompany a fall; and that the winds that correspond to a low barometer commonly accompany a rise.

TABLES RELATIVE TO THE PRESSURE OF DRY AIR—(TABLES XXVII. TO XXXVI).

The approximate normals of reference for the pressure of dry air are the hourly means in each month on the average of eighteen years.

Table XXVII. gives the monthly means of the pressure of dry air at each of the six observation hours in the years 1860, 1861, and 1862. The final columns of each monthly part are collected in Table XXVIII., and the lowest horizontal lines in Table XXIX.

Tables XXX. and XXXI. give, for each month and for each of the six observation hours, the mean abnormal variations of the pressure of dry air.

The following are the quarterly means of the abnormal variations of the pressure of dry air, together with those of the barometric pressure; both being derived from the same three years:

	Spring.	Summer.	Autumn.	Winter.	Year.
Dry Air.....	0.215	0.184	0.211	0.258	0.217
Barometer.....	0.191	0.128	0.175	0.233	0.183

The maxima and minima are as follows:

	Maxima.	Minima.
Dry Air.....	0.282 in December;	0.167 in July;
Barometer.....	0.257 in December;	0.144 in August.

From Table XXXI. a faint trace of a diurnal period is observable, ^{less} ~~better~~ marked in winter than in summer, the mean digression on the average of the year being slightly less at 10 P.M. than at 2 P.M. and the morning hours. The following are the half-yearly and yearly means of the abnormal variations, without regard to sign, at the different hours.

	h 2	h 4	h 10	h 12	h 18	h 20
Winter.....	0.241	0.237	0.237	0.237	0.241	0.242
Summer.....	0.198	0.197	0.188	0.190	0.198	0.196
Year.....	0.220	0.217	0.213	0.213	0.219	0.219

In Tables XXXII. and XXXIII. the abnormal variations, with their proper signs, are arranged according to the simultaneous direction of the wind.

From Table XXXII. it is seen that the pressure of dry air, as in the case of the barometer, is above the normal with the wind from N. and N.E. in both half-years, and below the normal with a wind from S.W. or W.; it is also above the normal in summer and below it in winter with a south wind. Unlike the total barometric pressure however, the pressure of dry air is above the normal in both seasons with a N.W. wind; and while in both seasons, with S.E. and E. winds, the barometer is above the normal, the pressure of dry air, though above the normal on the average of the year, is below the normal in winter. The annual means have the same signs as those for the total pressure, excepting that the pressure of dry air with a N.W. wind is decidedly above the normal, and with a south wind slightly below it.

In Table XXXIV. are exhibited the monthly and annual means of the changes in the pressure of dry air that take place in the 24 hours, commencing and ending with 6 A.M. The average changes in the four quarters and year, together with the corresponding averages of the total pressure, are given herewith:

	Spring.	Summer.	Autumn.	Winter.	Year.
Dry Air.....	0.228	0.207	0.237	0.302	0.243
Barometer.....	0.197	0.137	0.192	0.273	0.199

Hence while the average change in the pressure of dry air, in the different seasons, follows the same order of progression as that of the barometer, its changes are considerably greater. The range, or ratio of the winter to the summer change, is greater for the barometer than for the dry air, the ratios being respectively 1.99 and 1.46.

From Table XXXV., in which the average changes of the pressure of dry air in twenty-four hours, with their proper signs, are arranged according to the daily resultant direction of the wind, we find, on the average of the year, that the pressure increases in twenty-four hours with a resultant wind from N., N.W., and W., and decreases with a resultant wind from any other quarter. It appears further, that with eight exceptions only out of the ninety-six cases, this holds good for each separate month. The greatest rise on the average of the year occurs with a N.W. resultant, and the greatest fall with one from S.E., the range amounting to 0.491.

TABLES RELATIVE TO THE PRESSURE OF VAPOUR—(XXXVII. TO XLVI.)

The approximate normals referred to in the tables that follow are the monthly means at the six observation hours, derived from the records of eighteen years.

In Table XXXVII. are given the monthly means of the pressure of vapour at each observation hour for each of the three years, 1860, 1861, and 1862. The monthly means, on the average of the six hours, are given for each year in Table XXXVIII., and the monthly means at each hour on the average of the three years in Table XXXIX.

Table XL. exhibits the means of the abnormal variations of the pressure of vapour, without regard to sign, for each month in each of the years, 1860, '61, and '62, as well as on the average of the same three years. The greatest monthly mean digression, 0.099, is in August, and the least, 0.040, occurs both in January and in March. The transition from month to month is not perfectly regular, but it follows in the main the annual variation of the pressure of vapour. The general similarity in the annual fluctuations of the average amount of the pressure of vapour, and of its abnormal variations, will be seen by the annexed table, from which also it appears that the irregular variation averages about one-fourth of the whole pressure of vapour.

	Spring.	Summer.	Autumn.	Winter.	Year.
Pressure of Vapour.....	0.200	0.441	0.285	0.119	0.261
Abnormal Variations	0.055	0.090	0.071	0.043	0.065

It may be noticed further, that the digressions in the amount of vapour, *as compared with the whole amount*, are least in summer when the whole amount is greatest, and greatest in winter when the whole amount is least.

Table XLI. shews the monthly and annual means of the abnormal variation of the pressure of vapour at each observation hour for the period 1860 to 1862. On the average of the year the abnormal digression is greatest at 2 P.M. and least at 6 A.M., which are respectively the hours of greatest and least pressure of vapour among the six hours of observation.

The mean extent of the abnormal variations at 2^h P.M. and 4^h P.M. will be found to be greater than at the other hours in every month but January and February, and in every quarter but the winter. By comparing the annual means of the abnormal variations at the six different hours with the annual means of the pressure of vapour at the same hours, as shewn together in the annexed table, it appears that the former are nearly one-fourth of the latter.

	^h 2	^h 4	^h 10	^h 12	^h 18	^h 20
Pressure of Vapour.....	0.280	0.275	0.256	0.250	0.247	0.261
Abnormal Variations	0.071	0.070	0.064	0.063	0.061	0.062

In Tables XLII. and XLIII. the mean abnormal variations of the pressure of vapour, with their proper signs, are arranged according to the simultaneous direction of the wind.

From Table XLII. it appears that the pressure of vapour is below the normal with a wind from N., N.W., and W., on the average of the year and for both half-years, and that this is true for each year taken singly. With a wind from any other quarter the pressure of vapour is above the normal on the average of the three years, as well as on the average of the three winters; this, excepting as regards the N.E. wind in 1862, being also true for each separate year. With winds from N.E., E., and S.E., the pressure of vapour during the summer half-year is sometimes above and sometimes below the normal. On the average of the year the pressure is greatest with a wind from S.W., and least with a wind from N.W. In both seasons the least vapour occurs with a wind from N.W., but in winter the largest amount of vapour is with a wind from the S.E., a quarter which in summer is accompanied by an amount of vapour below the average.

From Table XLIII. wherein the mean differences above or below the normal with different winds are given for every month, it is seen that the pressure of vapour is below the normal with a wind from N., N.W., and W., in every month, with one exception for the north wind and one exception for west. With winds from other points the pressure is above the normal in most months, seventeen exceptions occurring among the sixty monthly means for the said five winds.

The mean changes in the pressure of vapour between 6 A.M. and 6 A.M. on consecutive days, and without regard to sign, are given for each month and year in Table XLIV. The average change for the year is 0.060, the greatest change being 0.093 in September, and the least 0.038 in January. The quarterly means are :

Spring.	Summer.	Autumn.	Winter.
0.044	0.087	0.067	0.042

It may be seen from Table XLV., which gives the mean changes, with their proper signs arranged according to the resultant direction of the wind, that on the average of the year, as well as in each separate month, with one exception only out of the thirty-six cases, the vapour diminishes in twenty-four hours with a resultant wind from N., N.W., and N. With a resultant wind from any other quarter the vapour increases on the average of the year as well as in each separate month, with nine exceptions out of the sixty cases. The greatest increase $+0.085$ is with a S.E. resultant, and the greatest decrease -0.044 with a resultant from N.W.

RELATIVE HUMIDITY—(TABLES XLVII. TO LV.)

The approximate normals with which the humidity at observation is compared, are the monthly means at each observation hour derived from the records of eighteen years.

In Table XLVII. the monthly means are given for each hour and for each of the three years. The six-hour means for each of the three years are shewn in Table XLVIII., and the three-year means at each observation hour in Table XLIX.

The abnormal variations without regard to sign, as given in Table L., are greatest in June, on the average of the three years, and least in December and January. The quarterly averages given in the annexed table, wherein saturation is expressed by 100, shew however that the greatest irregularity occurs in spring and the least in winter.

Spring.	Summer.	Autumn.	Winter.	Year.
11.0	10.0	8.3	8.2	9.4

In the diurnal period the abnormal digressions, as given in Table LI., are greatest on the average of the year at 4 P.M. and least at 6 A.M. They are greater at 2 P.M. and 4 P.M., taken together, than at the other four hours, not only on the average of the year, but in each month, the monthly and quarterly averages being as follows :

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
^h 2 and ^h 4	10.0	11.0	12.8	14.0	13.0	13.9	11.5	11.0	10.8	10.4	10.2	10.2
^h 10, ^h 12, ^h 18, ^h 20	7.0	7.5	8.5	9.7	11.1	11.5	8.4	6.8	7.1	7.3	7.1	6.8
				Spring.	Summer.	Autumn.	Winter.	Year.				
^h 2 and ^h 4				13.3	12.2	10.5	10.5	11.6				
^h 10, ^h 12, ^h 18, ^h 20				9.8	8.9	7.2	7.1	8.2				

In Tables LII. and LIII. the mean abnormal variations, with their proper signs, are arranged according to the direction of the wind. In Table LII., where the mean results are given for each half-year and each year, it sometimes occurs* that with half-yearly means of opposite signs, the yearly mean has the same sign as the half-year, of which the digression is numerically the smaller of the two. This is occasioned by the excess in the number of winds in the half-year for which the mean digression is numerically less, and by the fact that the annual mean is obtained by dividing the algebraical sum of all the abnormal variations accompanying the wind in question by the number of those winds. A similar explanation is applicable wherever cases of such apparent contradiction are found.

With winds from N.E., E., and S.E., the air is relatively damp, and with winds from W., N.W., and N., the air is relatively dry. The most damp wind is from E. and the most dry wind from N.W.; but the range is small, amounting only to 9.0. The dampness of the E. wind is greater in winter than in summer, and the dryness of the N.W. wind is greater in summer than in winter, but the range between these two winds remains nearly the same in both seasons.

On referring to table LIII. it is seen that the N.W. wind is relatively dry in every month, and that the east wind, with one exception, is relatively damp in every month. Winds from N., N.W., and W., are relatively dry in every month with six exceptions out of the thirty-six cases; winds from N.E., E., S.E., and S.W. are relatively damp, with ten exceptions out of forty-eight cases, while the S. winds, which are dry in the summer half-year and damp in winter, are dry in four of the six summer months and damp in four of the six winter months.

The average change in relative humidity in twenty-four hours, without regard to sign, is shewn by Table LIV. to be 8.9; the greatest monthly mean being 12.4 in June, and the least 7.3 in February. The quarterly means are 10.2 in spring, 9.6 in summer, 7.8 in autumn, and 7.7 in winter.

According to Table LV. the humidity on the average of the year increases in twenty-four hours when accompanied by a resultant wind from N.E., E., S.E., and S., and diminishes with a resultant from S.W., W., N.W., and N.; the greatest increase of humidity being with a resultant wind from E., and the greatest diminution with one from N.W. The range between the E. and N.W. winds however, is only 6.1.

It is just to remark with reference to Tables L. to LV. that the observations of only three years are materials too scanty to justify our regarding as conclusive the results that relate to the abnormal variations and diurnal changes of the relative humidity.

EXTENT OF SKY CLOUDED—(TABLES LVIII. TO LXI.)

In Table LVIII. the monthly and annual means of the extent of sky clouded (the hemisphere being unity,) are given for each of the six observation hours, and for each of the three years. Table LIX. contains the final columns of the several monthly parts of Table LVIII., and Table LX. the lower lines of the same monthly parts. From Table LIX. we find, on the average of the last three, as well as on that of the preceding six years, that December and August are the most cloudy and the least cloudy months respectively. The mean amounts of cloudiness in each quarter are proportional to the following numbers, the annual mean being unity:

	Winter.	Spring.	Summer.	Autumn.
1854-'59	1.22	0.97	0.81	1.04
1860-'62	1.19	0.92	0.82	1.05

Table LX. shews that 2 P.M. is the most cloudy hour on the average of the year, in both series, and that 10 P.M., or midnight, are the hours most free from clouds. If the monthly means at the several hours given in this table, as well as those from the corresponding table in the preceding volume, be combined in quarterly averages, it is found that in every quarter 10 P.M. and midnight are nearly equally cloudy, and that they are less cloudy than other hours. In both series the amount of cloud at 2 P.M. in winter, is equalled or exceeded by that at 6 A.M. and 8 A.M.; but, excepting in the summer quarter for 1860-'62, when 2 P.M. is very decidedly in excess, the difference between the hours 6 A.M., 8 A.M., 2 P.M., and 4 P.M., with respect to the amount of cloud, never exceeds .04. The diurnal ranges in the four quarters are as follows:

	Winter.	Spring.	Summer.	Autumn.
1854-'59	11	12	16	12
1860-'62	10	11	18	8

The extent of sky clouded under different surface winds is shewn in Table LXI. On the average of the whole year it appears from both series that there are two maxima; the principal one between E. and N.E., and the second at or about S.W. There are also two minima; one at or about S., and the other between N. and N.W. The two minima are nearly equal in the earlier series, but in the last three years the lowest minimum is decidedly at N.W. As the number of times any given wind blows is not the same in different months, neither the annual nor quarterly means under different winds can be deduced with strictness from the numbers in this table. But if, in order to form an approximate estimate of the general character of the progression in the amount of cloud from point to point of the compass that occurs in the different seasons, the monthly means corresponding to the different winds be grouped in quarterly averages, it is found that the double progression disappears in the winter and autumn, the minimum in both of these seasons being at N.W., and the winter maximum at or to the south of E. In spring and summer the progression is double, the principal maximum, as before, is between E. and N.E.; but in spring the principal minimum is between S. and S.E., while in summer the principal minimum is decidedly at N.W.

ON THE COMPARATIVE DURATION OF THE SURFACE WINDS FROM THE SIXTEEN PRINCIPAL POINTS, AND THE ANNUAL DISTRIBUTION OF EACH SEPARATE WIND WITH RESPECT TO ITS DURATION—(TABLES LXII. TO LXVIII.)

These tables have been constructed in a manner similar to that employed for the years 1853 to 1859, in the Toronto Meteorological Results already published. The three years, 1860-'62, have been incorpo-

rated with the preceding seven years, and in order to shew the extent of the correspondence in the results of different years, the ten years, 1853-'62, have been discussed not only collectively but in two equal groups. In Table LXII. are given the absolute duration in hours of each of the sixteen winds and the calms, in each month and in the year, for the two partial periods as well as for the ten years collectively, the numbers in this table being derived from hourly records by Robinson's anemometer. The absolute durations for each quarter are given in Table LXIII. The numbers in Table LXIV. are the quotients arising from the division of the numbers in Table LXII. by the monthly and annual arithmetic means, *excluding* the calms; Table LXV. being derived in a like manner from Table LXIII.

According to the results furnished by the ten years, winds from S.S.W. through W. to N. are above the average of the sixteen winds on the average of the year; but the N.W. and N.N.W. winds alone are above the average in each separate month. The E. and E.N.E. winds are above the average on the whole year, and the E. is above the average in every month but December and January. The N. wind is above the average in every month but March, June, and November. The S. wind is below the average on the average of the year, as well as in every month but June, July, August, and September. The principal maximum on the whole year is at N.N.W., and the principal minimum at S.E.; there is also a second maximum at E., and a second minimum about N.N.E. to N.E. The positions of the maxima and minima among the points of the compass do not remain permanently fixed through the year. Referring to Table LXV. wherein the nature of their movements will be best seen, we find that in winter the progression is single, the maximum being at W.S.W. and the minimum between S.E. and S. In spring the maximum of the winter has moved northward to N.W., but it is equalled or surpassed by the eastern maximum which has reappeared together with the second minimum at N.N.E. In summer the western maximum is broken, as it were, into two almost equal maxima, the principal one being restored to N.N.W. while the second has receded to S.S.W., the eastern becoming thereby a third maximum. The first and second minima occupy the same positions as before, while a third minimum has appeared at W.S.W. In autumn the two western maxima of the summer coalesce and jointly approach the winter position, being now at W.N.W. The eastern maximum continues but it is considerably softened down.

Table LXVI., giving the quarterly ratios for the period of ten years, where calms are *included* in the divisors, has been formed to aid in the construction of Tables XI. and XII., wherein extraordinarily high and low temperatures are classed under the several winds.

The ratios in Table LXVII. shew the annual distribution of each wind taken singly. The only instance of an uninterrupted annual period is that of the south wind, which passes continuously from its maximum in July, to its minimum in December. The winds from S.E., S.S.E., and S.S.W. follow the same order as that of the south wind in their progression, but not with equal regularity. Winds from E.S.E., E., and E.N.E. have their maxima in April or May. Proceeding from the S.S.W. towards the west, we find that the transition from month to month, in the frequency of S.W. winds, follows no definite rule; at W.S.W. and W. the maxima are found in the cold months and the minima in the warm months, while the winds from W.N.W. through N. to N.E. are very irregular. It may be remarked however, with reference to these latter, as well as to the S.W. winds, that although irregular as regards the differences between month and month, there is a fair correspondence in the different groups of years.

The general character of the annual march in the frequency of each wind taken singly, and the change in the position of the maxima in the annual period as different winds are considered, will be better seen from the quarterly averages of the ratios of Table LXVII., which are given in Table LXVIII. Com-

mencing at E.N.E., the quarter of maximum frequency for E.N.E. and E. is spring; for E.S.E. and other points through S. to S.W. the greatest frequency is in summer. At S.W. a sudden breach of continuity takes place, the winter becoming the quarter of greatest frequency for winds from S.W., W.S.W., and W. With respect to winds from W.N.W. through N. to N.E. nothing of any definite character can be stated.

ON THE WINDS IN THE UPPER STRATA AS SHEWN BY THE MOTION OF THE CLOUDS.
(TABLES LXIX. TO LXXIV).

At each of the six observation hours a note was always made of the direction from which the clouds were moving. When the motion was too slow to be detected by the eye, or when no clouds were visible, the sky in these tables is designated as being calm or clear. It is probable that in many instances, and especially at the night hours, the clouds have been recorded as motionless in consequence of the inability of the observer to perceive the motion, and hence in part may be explained the very large number of cases of calm sky, amounting to nearly one-third of all the observations.

In Table LXIX. are given the absolute number of each upper wind, for each month as well as for the two half-years and year, as furnished by six observations daily during the nine years 1854-62. The quotients resulting from the division of the numbers in Table LXIX. by the monthly, half-yearly, and yearly means, *including* the cases of clear and calm sky, are given in Table LXX.

It is seen that while the winds from west are far more numerous than all other upper winds, they are exceeded in the six winter months separately and collectively by the calms, while in the summer the westerly upper winds exceed the calms in the six months collectively, and in each of the months, June, July, August, and September. The cases of clear sky are above the average of the observations, or more than one in ten, in every month but November and December.

The relative frequency of the different upper winds is seen better in Table LXXI., wherein the numbers of Table LXIX. are expressed in terms of the means of the eight winds, without including the cases of calm or clear sky.

Of the upper currents, that from the west greatly exceeds in frequency all others; not only on the average of the year, for which it is 3.80 times as frequent as the average frequency of all winds, but also in each month taken singly. Next in order of frequency in each month separately, is the wind from N.W., which has a more than average frequency in each single month, its relative frequency on the average of the year being 1.91. The S.W. wind is a little above the average of all winds in winter, and under the average in summer, while the winds from the other five points are greatly below the average in every month, the average of the ratios that express their relative frequency in the year being only 0.27. The least frequent upper wind is from the south, the next in order being the N.E. wind.

In Tables LXXII. and LXXIII. the half-yearly and yearly ratios in Tables LXX. and LXXI., derived from six daily observations, are compared with the ratios from the three hours, 8 A.M., 2 P.M., and 4 P.M., and with the ratios from the hours 10 P.M., midnight, and 6 A.M.

While the calms are more numerous than the west winds on the average of the year, when the six hours are reckoned together, it appears from LXXII., that for the three hours 8 A.M., 2 P.M., and 4 P.M., the west winds greatly exceed the calms on the average of the year, as well as in the winter and summer

separately, the excess being greatest in the summer. For the other three hours the calms are greatly in excess in both seasons, and chiefly so in the winter.

In Table LXXIII., where the winds alone are compared without reference to the calm or clear sky, it is found that the west wind maintains its preponderance materially to the same extent in each group of hours. The N.W. wind is the second, and the S.W. wind the third in order of frequency, in both seasons and in both groups of hours; but both in summer and in winter the excess of the N.W. over the S.W. wind is greatest in the night and least in the day.

The annual distribution of each upper wind is given in Table LXXIV., together with the ratios expressing the relative frequency of each wind in the winter as compared with the summer. The monthly numbers are derived from those of Table LXXII. by dividing these latter by the annual means corresponding to each wind. The three final columns are obtained by dividing the numbers in the columns of Table LXXII. headed "winter," by the numbers in the columns headed "summer."* From the three final columns it is seen that the N., N.W., and S.W. winds, on the average of the six hours, are nearly equally frequent in winter and in summer, the frequency in winter slightly exceeding that in summer during the day and falling short of it in the night; the greatest disparity in the day and night occurring with the S.W. wind. The S.E. and S. winds are in excess in winter as compared with summer, both during the day and during the night. The E., N.E., and W. winds are less frequent in winter than in summer at all hours, and particularly during the night. In fact, with respect to all upper winds, it may be stated that the ratios expressing their relative frequency in winter as compared with their frequency in the summer, are greater at the hours 8 A.M., 2 P.M., and 4 P.M., than at 10 P.M., midnight, and 6 A.M. The calms of winter greatly exceed in frequency those of summer, the preponderance being nearly the same at all hours. Cases of clear sky, on the contrary, are most frequent in summer, their preponderance in summer being the same for both groups of hours.

In Table LXXV. are collected the absolute number of each upper wind at each separate observation hour, together with the aggregate number in each of the two groups of hours, namely at 10 P.M., midnight, and 6 A.M., and at 8 A.M., 2 P.M., and 4 P.M.

Table LXXVI. shews for each hour separately, as well as for each of the two groups of hours, the relative frequency of each upper wind, together with the cases of calm and clear sky. It is derived from the preceding table by dividing the numbers therein contained by the arithmetic means given in the last line but one. Table LXXVII. has been computed in a similar manner from Table LXXV., the divisors being the arithmetic means in the lowest line of that table.

From Table LXXVI. we learn that while upper winds from the west greatly exceed all other winds at every hour, the calms are more numerous than the west winds at the hours 6 A.M., 10 P.M., and midnight, both separately and collectively, and less numerous at 8 A.M., 2 P.M., and 4 P.M. Cases of clear sky are above the average, or exceed one in ten of the observations at every hour but 2 P.M. Midnight is the hour at which a clear sky is most frequent; clear sky being generally more than twice as frequently found during the hours 6 A.M., 10 P.M., and midnight, as at the other hours.

From Table LXXVII., in which the different upper winds are compared, without reference to the cases of calm or clear sky, we find that the west is by far the most frequent of the upper winds, but that

* The numbers which in Table LXXII. are given to two decimal places, were carried out to three places when the divisions were performed; hence the want of perfect accordance between Table LXXII. and the three final columns of Table LXXIV.

its preponderance is nearly the same at all hours. The N.W. is the second in order of frequency, and the S.W. the third. The N.W. wind at all hours is above the average of all winds; but the excess in its frequency is greater in the night than in the day. The S.W. wind is equal to the average of all winds during the day, but considerably below it in the night. Winds from the remaining five points are greatly below the average at all hours.

The diurnal distribution of each upper wind, taken singly, is shewn in Table LXXVIII. The hourly numbers are derived from those of Table LXXV. by dividing them by the six-hour means in the final column of that table. The three final columns of Table LXXVIII. give the ratios of the absolute number of each upper wind at the day hours to the absolute number of the same wind at the hours of the night.

From the hourly numbers in this table it appears that every upper wind is above the average during the three hours 8 A.M., 2 P.M., and 4 P.M., and below the average at the other hours, an exception being made with respect to the S.E. wind at 6 A.M. The excess in the frequency of all upper winds at the three day hours, as compared with that of the other three hours, is shewn by the final columns to be greater in winter than in summer. It is greatest for the N.E. wind and least for the N.W. wind. Both calm sky and clear sky are less than half as frequent in the day as in the night, the disparity between the day and night being the same for both, and being also the same in winter as in summer.

Tables LXXIX., LXXX., LXXXI., are derived from the observations of three years only, namely, 1860, '61, and '62, and are designed to shew the relations between the upper currents and the simultaneous surface winds. The method employed in the computation is sufficiently explained by their titles.

It is obvious that if the decimal points be omitted in Table LXXX. the numbers under any point of the compass will shew how often, out of a thousand times that the corresponding surface wind occurs, it is accompanied by each of the several upper currents. Thus out of 1000 times that a surface north wind blows, calms aloft occur 375 times, a clear sky 273 times, an upper current from N. 38 times, and one from S. only 4 times. With a surface wind from E. the clouds move more frequently from W. than from E. With surface S. winds the clouds never move from the N., and they are about 27 times as numerous from the W. as they are from the S. Whatever be the surface wind, unless it be from S., S.W., or W., it is more frequently attended by a calm sky than by a motion of the clouds in any one specified direction; but when the lower wind is from S., S.W., or W., a motion of the clouds from W. is more frequent than a calm sky. A clear sky is above the average with surface winds from every point but the E.; in other words it occurs in the ratio of more than one for every ten times that each surface wind blows. Calms aloft and upper winds from W. are above the average during every surface wind. A calm sky is more frequently an accompaniment of an easterly surface wind than of a surface calm.

Whatever be the surface wind, it appears from Table LXXXI. that the westerly upper wind far exceeds all other upper winds in frequency. It is most frequent with a surface wind from W., and least frequent with one from E. The N.W. upper current which stands next in order of frequency is above the average of the upper currents with all surface winds but those from E. and N.E. The S.W. is above the average of upper currents when the surface wind is from any point from N.E. through S. to S.W., and below the average with a surface wind from N., N.W., and W. The upper current from E. is above the average when the surface wind is from N.E. and E., but below the average with all other surface winds. The S.E. upper wind is far below the average, excepting during an easterly surface wind, when it is slightly above. Upper winds from N., N.E., and S. are below the average whatever be the winds at the surface.

ON THE RELATIVE FREQUENCY OF THE DIFFERENT WINDS DURING DAYS OF RAIN OR SNOW, FROM THE HOURLY RECORDS OF TEN YEARS (TABLES LXXXII. TO LXXXVI.)

The object of these tables is to compare the different winds with reference to the number of hours that they blow during days in any part of which a fall of rain or snow takes place. If all winds continued for an equal number of hours through the year or through the particular season under consideration, it would be sufficient to compare the *absolute* durations of the several winds on days of precipitation; but as there is a very great inequality in the frequency of winds from different points of the compass, (winds from N.W., for example, being more than three times as numerous as those from S.E.,) an undue prominence would be given to the winds of greater general frequency, if the comparison were to be made between the absolute durations. Hence it becomes requisite that the absolute durations of each wind during the days of rain included within a given period of time, should be divided by the whole duration of the same wind within the same period. The quotients form what may be termed the *relative* durations of the several winds, and constitute the proper quantities for intercomparison.

As winds of comparatively rare occurrence on days of heavy rain were found, according to the results in the preceding volume, to blow very frequently on days of light rain, the adoption of some classification of the rainy days became necessary. In these tables the days of rain have been arranged in three classes, which have been considered separately, as well as collectively in one group. Class I. includes days of light rain, in which the whole amount in the day did not exceed one-tenth of an inch. Class II. includes days of moderate rain, or over one-tenth and less than half an inch, while Class III. comprises days of heavy rain, wherein the fall in the day amounted to half an inch and upwards. The days in which snow fell are classified in a similar manner and with the same limits, one inch of snow being regarded as equivalent to one-tenth of an inch of rain. With a view of learning whether the relative duration of frequency of a wind during rain is affected by the season, the computations have been made separately for the winter half-year (October to March,) for the summer half-year (April to September,) and for the year as a whole. As the falls of snow after March are not sufficiently numerous to furnish materials for a separate discussion, no separation of the seasons has been made in the case of the snow.

Again, for the purpose of comparing the corresponding results in different years, the observations of the ten years, 1853 to 1862, have been discussed in two separate equal groups as well as in one.

In Table LXXXII. the durations of the different winds on days of rain during the six months, October to March, are examined. The three lines marked (1) in Class I. contain the absolute number of hours that each wind blew on days of light rain. The three lines marked (2) give the absolute number of hours that the same winds blew, with and without rain, during the same period. The three lines marked (3) are the relative durations of the several winds, being the quotients arising from the division of the numbers in (1) by the corresponding numbers in (2). It is clear, if the decimal points be disregarded, that any one of the numbers in (3) will indicate the number of hours comprised in days of light rain out of a thousand hours during which the corresponding wind blew within the same period: thus out of 1000 calm hours in the winters of the ten years, 1853 to 1862, 169 occurred during days of light rain. The ratios in the three lines marked (4) are obtained from the numbers in (3) by dividing each number by the arithmetic mean of the seventeen numbers in the same line. The computations for the other classes in Table LXXXII. as well as those of the corresponding tables for the rain in the summer half-year, for the rain in the whole year, and for the snow (Tables LXXXIII., LXXXIV., and LXXXV.,) have been made in a precisely similar manner.

Table LXXXVI. gives a synopsis of the final ratios in the four preceeding tables.

Referring to the results of the ten years, it appears that in winter, whatever be the class of the rainy days, the progression in the relative frequency of the different winds is single, the maximum being at or near east, and the minimum at N.W. The amplitude however, is much greater for the heavier falls, the ratio of the maximum to the minimum being more than 20:1 in Class III., and less than 2:1 in Class I. The portion of the compass also for which the relative frequency is above the average extends from E.N.E. through S. to S.W. in Class I., but is limited in Class III. to the points N.E. to S.S.E. inclusive.

Between the summer and the winter half-years a marked contrast may be noticed, and particularly as regards the lighter rain, a double progression in the summer occurring in each of the classes.

For light rain the principal maximum is at W.S.W. and the principal minimum at or near N.N.E. the second maximum being at or near E., and a second minimum between S. and S.E. In Class II. the maximum at E. slightly exceeds the western maximum, and in Class III. the excess is very decided. Where rain is considered without reference to its amount, the eastern and western maxima are very nearly equal. Taking the whole year together, the distribution of the winds in Class I. is chiefly governed by the summer half-year, while Classes II. and III. resemble the same classes in the winter, although with less prominently marked features.

For the light snow there is a tolerably well defined maximum at or near W. From W., in both directions round the compass, there is a descent in the frequency of the winds as far as E. and S., at which points there are what may be termed two equal minima including a space, for which, on the average of the three included points, the winds are about 1.3 times as numerous as at either E. or S.

Classes II. and III., which possess the same general characters as regards the distribution of the winds, are in striking contrast with that which is found to accompany the lighter falls of snow; the most frequent wind on days of moderate or heavy snow being very decidedly at or near N.E., while the western maximum is nearly obliterated. The wind of most rare occurrence during such falls being from points at or near S. When no account is taken of the amount of snow that falls in the day, the most frequent wind relatively is from W., the N.E. wind forming a second maximum not very inferior to that at W. The least frequent wind is from S., and there is also a second depression between the maxima at W. and N.E., but which does not fall below the average as compared with all the points of the compass.

DEPTH AND FREQUENCY OF RAIN AND SNOW—(TABLES LXXXVII. AND LXXXVIII.)

The number of days of rain, together with its depth in inches, for each month of the years 1860, 1861, and 1862, are given in Table LXXXVII. Table LXXXVIII. contains the corresponding results for snow. The monthly and annual averages for the three years are accompanied by the corresponding averages derived from a series of years. The average frequency of rain and snow is derived, in each case, from the records of twenty-three years; but owing to breaks that occurred in the early part of the series, the average monthly and annual depths of rain are obtained from twenty-one, and those of snow from twenty years.

From these tables it appears that both rain and snow were much more frequent on the average of the three years, 1860-'62, than on that of the whole series, for the year taken collectively, as well as for almost every month; days of rain being about 20 per cent. and days of snow about 30 per cent. more

numerous in the partial than in the entire series. The *depth* of rain, on the contrary, was nearly 16 per cent. in defect on the average of the three years, as compared with the general average of the whole series. The average annual depth of snow was in excess, but not to such an extent as to compensate for the deficient rain; the general deficiency in the precipitation of the three years (allowing an inch of rain to be equivalent to ten inches of snow,) being more than 11 per cent.

The results derived from the hourly rain gauge, which was in operation from April to November in 1861, and from April to October in 1862, do not reveal any distinct diurnal period, either as regards the depth or the frequency of the rain. Arranging the day in six periods of four hours each, and dividing the depth of rain in each period and its frequency (or the number of hours in any part of which a fall occurred,) by the average depth and frequency in the six periods, the ratios are obtained which are given in the annexed table.

PERIODS.	6 A.M.	10 A.M.	2 P.M.	6 P.M.	10 P.M.	2 A.M.	Average of the six periods.
	to 10 A.M.	to 2 P.M.	to 6 P.M.	to 10 P.M.	to 2 A.M.	to 6 A.M.	
Depth, 1861	0.55	0.76	1.37	1.41	1.07	0.84	1.00
“ 1862	1.18	0.93	1.00	0.92	0.97	1.00	1.00
Frequency, 1861	0.84	0.84	1.02	1.06	1.08	1.16	1.00
“ 1862	1.18	0.97	0.92	0.99	0.88	1.06	1.00

MEAN ANNUAL VARIATIONS OF TEMPERATURE FROM THE OBSERVATIONS OF TWENTY-THREE YEARS.

Table LXXXIX. is an extension of a similar table published by General Sabine on page 163 of the Philosophical Transactions for the year 1853. The monthly and annual means of temperature for the twelve years, 1841-'52, are reprinted from the paper of General Sabine. For the eleven years, 1853-'63, inclusive, the monthly means derived from six observations each day are corrected for diurnal variation, by aid of the tables by General Sabine on pp. 145 and 146 of the same volume.

For the sake of comparison the means furnished by the twelve years, 1841-'52, have been introduced, together with the normal temperatures for the parallel of latitude 43° 40' N. as computed by Dove.

The probable variabilities of the several months at the foot of the table are derived from the squares of the differences between the partial and general monthly means. The quarterly averages of these numbers, from the series of twenty-three years, and from the twelve years, are as follows :

	Winter.	Spring.	Summer.	Autuma.
1841-'52	2.6	2.2	1.4	1.8
1841-'63	2.8	2.0	1.5	1.6

The probable variability of a single year, as regards the annual mean, is 0°.63 for the twelve years, and 0°.61 for the twenty-three years.

The following are the quarterly averages of the probable errors of the monthly means for the whole period :

Winter.	Spring.	Summer.	Autumn.
0.59	0.42	0.30	0.33

The probable error of the general mean temperature for the year is 0.18 for the twelve years, and 0.13 for the twenty-three years.

If the assumption be accepted that the monthly means of temperature for the whole period are the temperatures proper to epochs separated by twelve equal intervals, the January mean being the mean temperature corresponding to the 15th of that month, regarded as the zero of time, then will the temperature T_n , corresponding to the time (n), (the unit of time being the twelfth part of a year) be represented by the expression.

$$\begin{aligned}
 T_n = & 44.18 + 22.32 \sin (n \times 30 + 261^\circ 2') + 0.74 \sin (2n \times 30 + 78^\circ 25') \\
 & + 0.61 \sin (3n \times 30 + 181^\circ 8') + 0.29 \sin (4n \times 30 + 38^\circ 3') \\
 & + 0.74 \sin (5n \times 30 + 51^\circ 7') + 0.30 \cos (6n \times 30). \quad (I.)
 \end{aligned}$$

The two assumptions, (1) that the mean temperature of a month is identical with the temperature of its middle point, and (2) that the months are all of equal length, are evidently not in strict accordance with fact. A nearer approach to accuracy will be made by admitting the second of the preceding assumptions only and by applying corrections for the errors introduced by the first. Making the necessary corrections* to the co-efficients of the several terms of equation (I.), the mean diurnal temperature T'_n at any time (n), will be given more accurately by the following equation :

$$\begin{aligned}
 T'_n = & 44.18 + 22.58 \sin (n \times 30 + 261^\circ 2') + 0.77 \sin (2n \times 30 + 78^\circ 25') \\
 & + 0.68 \sin (3n \times 30 + 181^\circ 8') + 0.35 \sin (4n \times 30 + 38^\circ 3') \\
 & + 1.00 \sin (5n \times 30 + 51^\circ 7') + 0.47 \cos (6n \times 30). \quad (II.)
 \end{aligned}$$

If the values 0, 1, 2, &c., 11, be substituted for (n) in equations (I.) and (II.), the corresponding values of T_n in equation (I.) will be identical with the monthly means from the records of twenty-three years given in Table LXXXIX. ; and the corresponding values of T'_n in equation (II.) will be the diurnal means proper to the middle points of the twelve months regarded as of equal length.

MEAN ANNUAL VARIATIONS OF BAROMETRIC PRESSURE FROM THE OBSERVATIONS OF TWENTY-THREE YEARS.

The mean barometric pressures for every month of each of the twenty-three years, 1841 to 1863, have been collected in Table XC. During the seven years, July 1842 to June 1848, the readings were made at each of the twenty-four hours. From this series tables were formed containing, for each month and hour, the differences between the monthly means for the hour and the monthly means on the average of twenty-four hours. These differences being regarded as corrections for diurnal variation, were employed in reducing the monthly means in the remainder of the series, during the greater part of which the observations were made six times only each day.

* See note on page xxiv.

The greatest probable variability of a monthly mean, .0562, is in February, and the least, .0292, is in July. The quarterly averages of the probable monthly variabilities and of the probable errors of the monthly means given by the whole series, are the following :

	Winter.	Spring.	Summer.	Autumn.
Variability . . . . .	.0435	.0433	.0313	.0414
Probable error . . . .	.0091	.0090	.0065	.0086

The probable variability of a single year with respect to the annual mean barometric pressure is .0125, and the probable error of the general annual mean for the whole series is .0026.

Making the same assumptions as in the case of temperature, B_n , the diurnal mean of barometric pressure at any time (n), may be computed from the following formula, derived from the twelve monthly means at the foot of Table XC.

$$\begin{aligned}
 B_n = & 29.6190 + .0350 \sin (n \times 30^\circ + 147^\circ 21') + .0126 \sin (2n \times 30^\circ + 11^\circ 29') \\
 & + .0177 \sin (3n \times 30^\circ + 116^\circ 34') + .0067 \sin (4n \times 30^\circ + 133^\circ 11') \\
 & + .0081 \sin (5n \times 30^\circ + 251^\circ 20') - .0018 \cos (6n \times 30^\circ). \quad (I.)
 \end{aligned}$$

The diurnal means are given more accurately by the following equation, obtained from (I.) by applying the requisite corrections* to the co-efficients:

$$\begin{aligned}
 B'_n = & 29.6190 + .0354 \sin (n \times 30^\circ + 147^\circ 21') + .0132 \sin (2n \times 30^\circ + 11^\circ 29') \\
 & + .0197 \sin (3n \times 30^\circ + 116^\circ 34') + .0081 \sin (4n \times 30^\circ + 133^\circ 11') \\
 & + .0109 \sin (5n \times 30^\circ + 251^\circ 20') - .0028 \cos (6n \times 30^\circ). \quad (II.)
 \end{aligned}$$

* To effect the corrections to which reference is made above, the coefficients of the terms in (I.) which involve n , $2n$, $3n$, &c., are multiplied respectively by the factors $\frac{\pi}{12}$, $\frac{2\pi}{12}$, $\frac{3\pi}{12}$, &c. The products resulting from $\sin \frac{\pi}{12}$, $\sin \frac{2\pi}{12}$, $\sin \frac{3\pi}{12}$ this multiplication are the coefficients of the corresponding terms in (II.)

least, .0292, is
the errors of the

metric pressure is

barometric pres-
sure monthly means

29).

11).

(I.)

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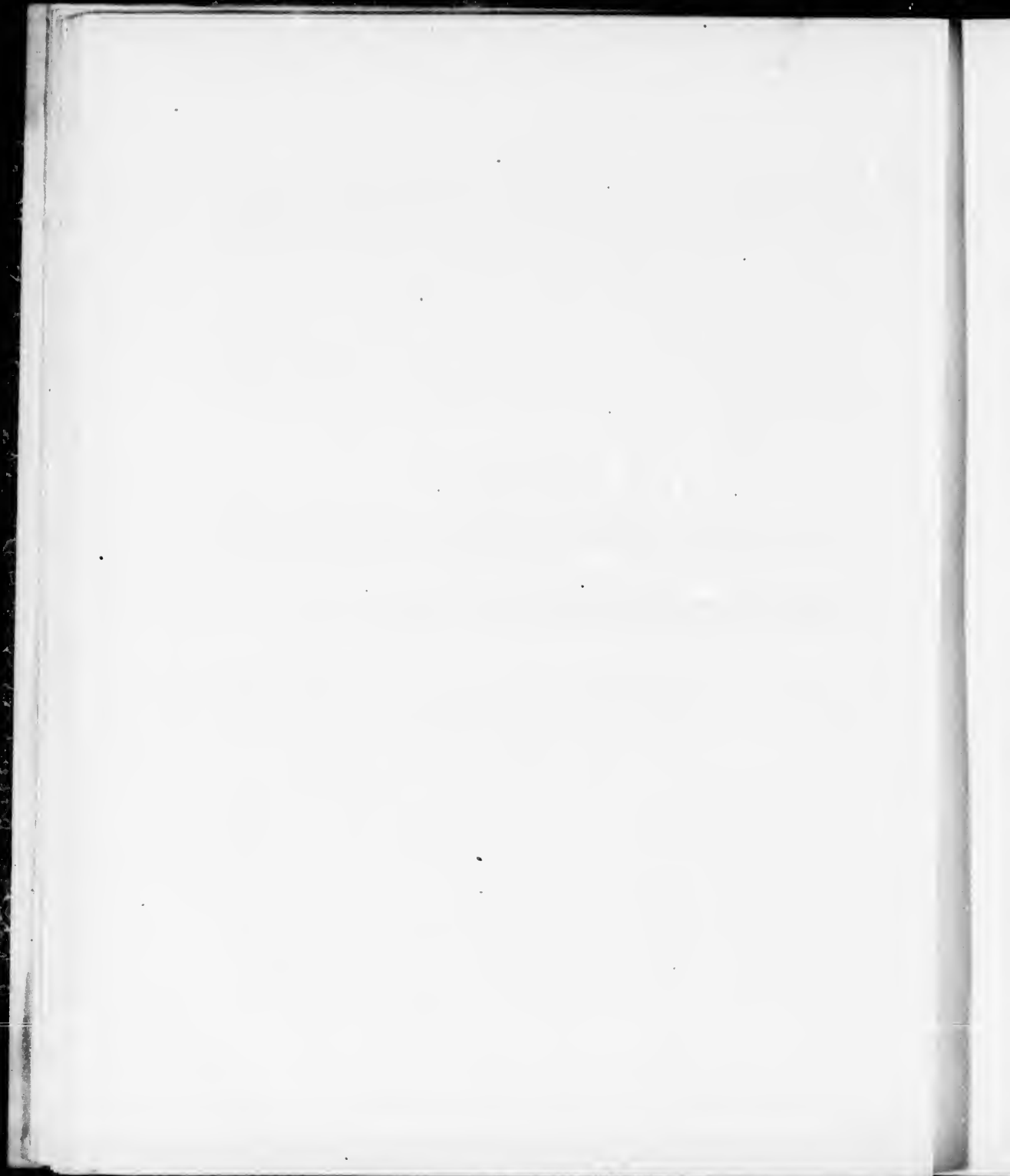
29).

11).

(II.)

TORONTO

METEOROLOGICAL RESULTS.



TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—JANUARY, 1860.

Days.	DAILY MEANS.				Clouded Sky.	WIND.			Extremes of Temperature.			RAIN.		SNOW.		RAIN AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapor.	Humidity.	Barometric Pressure.		Pressure of Dry Air.	Direction.	Residual Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.
1	4.40	0.045	83	30.104	30.058	N 87 W	2.69	0.85	9.6	-3.0	12.6	...	...	0.2	2.0	0.020	2.0
2	16.42	0.080	87	29.772	29.692	S 66 W	4.45	6.54	11.8	-1.8	13.6	...	...	1.5	11.0	1.50	11.0
3	9.32	0.060	83	30.867	.806	S 58 W	11.08	11.43	20.2	10.8	9.4	...	...	0.2	1.5	0.20	1.5
4	12.33	0.064	83	30.111	30.048	S 77 W	9.60	9.77	18.4	-6.8	25.2	...	...	...	...	...	...
5	24.32	0.108	79	29.758	29.650	S 52 W	9.76	9.92	33.9	11.2	22.7	...	...	...	...	...	...
6	7.35.18	0.193	93	30.392	.199	S 54 W	3.68	3.78	37.0	28.1	8.9	...	...	...	...	...	...
7	...	...	...	...	...	S 68 W	7.03	8.00	38.6	33.4	5.2	...	...	...	...	...	...
8	33.82	0.171	87	30.695	.524	S 89 E	6.04	6.18	29.0	32.0	7.0	...	...	...	...	...	...
9	38.22	0.206	90	30.949	.343	N 15 E	3.41	7.73	42.5	33.8	8.7	...	...	...	...	...	...
10	18.60	0.09	57	30.743	.647	N 25 W	11.07	11.27	28.5	19.8	8.7	...	...	...	...	...	...
11	18.86	0.12	77	30.812	.733	S 78 W	8.51	11.63	24.0	10.4	13.6	...	...	...	...	...	...
12	12.32	0.068	88	30.950	.882	N 43 E	5.00	5.23	19.2	8.6	10.6	...	...	...	...	...	...
13	20.03	0.097	87	30.473	.376	S 67 W	2.24	2.51	28.0	9.5	18.5	...	...	...	...	...	...
14	32.98	0.151	79	30.360	.209	N 65 W	6.30	8.46	38.2	33.5	4.7	...	...	...	...	...	...
15	20.20	0.087	81	30.491	.404	N 17 W	4.57	4.81	23.2	19.4	3.8	...	...	...	...	...	...
16	23.25	0.118	86	30.364	.245	S 78 W	7.75	10.18	29.2	17.0	12.2	...	...	...	...	...	...
17	24.33	0.105	80	30.510	.405	S 73 W	11.67	13.12	28.5	16.0	12.5	...	...	...	...	...	...
18	34.08	0.155	77	30.393	.238	S 52 W	9.65	9.81	40.2	23.9	16.3	...	...	...	...	...	...
19	33.98	0.152	77	30.442	.290	N 79 W	4.18	4.58	42.4	31.7	10.7	...	...	...	...	...	...
20	30.15	0.119	70	30.838	.718	N 79 W	10.33	10.83	38.2	22.2	16.0	...	...	...	...	...	...
21	41.48	0.203	77	30.422	.219	S 56 W	4.11	4.49	35.5	23.0	12.5	...	...	...	...	...	...
22	31.92	0.113	64	30.621	.508	S 70 W	12.54	13.49	46.4	30.8	15.6	...	...	...	...	...	...
23	20.68	0.082	75	30.751	.659	N 66 W	18.88	19.28	37.8	32.5	5.3	...	...	...	...	...	...
24	19.57	0.088	81	30.557	.469	S 59 W	1.51	1.51	23.0	19.5	3.5	...	...	...	...	...	...
25	17.13	0.083	84	30.492	.410	N 71 W	5.63	6.63	27.4	16.8	10.6	...	...	...	...	...	...
26	...	...	...	...	...	N 3 W	4.50	7.60	24.4	10.8	13.6	...	...	...	...	...	...
27	38.35	0.108	68	30.379	.271	S 56 W	14.30	16.29	38.5	8.0	30.5	...	...	...	...	...	...
28	2.35	0.087	74	30.872	.834	N 86 W	16.43	20.31	34.0	22.2	11.8	...	...	...	...	...	...
29	...	...	...	...	...	N 9 E	9.19	9.36	7.9	4.3	3.6	...	...	...	...	...	...
30	...	...	...	...	...	N 89 W	6.09	9.37	29.83	17.58	12.25	...	...	...	...	...	...
31	23.38	0.110	81	29.643	29.533	N 89 W	6.09	9.37	29.83	17.58	12.25	0.740	24.2	8.7	50.5	1.610	74.7

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT.—FEBRUARY, 1860.

Days.	DAILY MEANS.				WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.			
	Temperature of the Air.	Pressure of Vapour.	Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resulant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	1.0	0.037	76	30.042	30.005	0.62	N 71 W	3.23	3.72	9.0	-8.5	17.5	...	...	...	...	...
2	10.98	.068	81	30.073	30.013	0.62	N 75 W	2.46	2.47	17.2	5.0	12.2	...	...	...	...	...
3	14.35	.067	78	29.960	29.893	0.60	S 25 E	3.06	3.90	20.0	7.2	12.8	...	...	...	...	...
4	19.42	.083	80	...	...	0.73	S 34 W	0.34	0.85	25.6	10.4	13.1	...	...	...	...	...
5	...	...	...	...	...	...	S 13 E	4.20	6.45	38.0	11.5	26.5	0.185	5.0	0.2	6.0	1.55
6	35.52	1.72	83	32.0	1.48	1.00	S 79 W	5.79	5.96	42.8	31.0	11.8	...	...	...	...	...
7	28.28	1.12	71	60.3	4.91	0.43	N 81 W	10.10	10.43	31.2	28.8	2.4	...	...	...	...	...
8	29.97	1.39	83	57.9	4.40	0.18	S 88 W	6.80	6.92	35.3	22.0	13.3	...	...	...	...	...
9	27.87	1.21	70	25.6	1.35	0.72	N 79 W	18.15	22.98	41.5	27.5	14.0	...	...	...	...	...
10	7.07	.043	74	91.2	8.67	0.18	N 29 W	7.66	8.44	12.8	3.9	8.9	...	...	...	...	...
11	13.97	.070	91	53.8	4.63	1.00	N 1 E	2.67	7.10	19.8	5.0	14.8	...	...	...	...	...
12	...	...	...	...	...	...	S 84 W	4.18	5.17	22.5	1.8	29.7	...	...	...	...	...
13	27.33	1.36	90	53.2	3.96	1.00	N 10 W	8.56	11.29	23.2	18.0	5.2	...	...	...	...	...
14	14.50	.071	81	81.2	7.41	0.42	N 4 E	5.56	13.59	28.0	4.2	23.8	...	...	...	...	...
15	23.87	1.15	89	49.2	3.97	0.98	S 70 E	5.45	7.51	19.6	11.5	8.5	...	...	...	...	...
16	9.57	.039	85	51.2	4.52	0.40	N 62 W	12.19	13.18	20.0	...	...	...	...	...	...	...
17	4.88	.043	78	63.2	5.89	0.33	N 66 E	5.45	7.51	19.6	-5.4	25.0	...	...	...	...	...
18	13.40	.071	88	05.0	28.980	1.00	N 13 E	16.25	20.73	50.2	7.2	13.0	...	...	...	...	...
19	...	...	...	...	...	...	N 73 W	9.06	11.79	22.7	6.2	16.5	...	...	...	...	...
20	28.28	1.29	82	52.8	29.410	0.67	S 55 W	7.08	7.17	34.6	11.5	23.1	...	...	...	...	...
21	33.72	1.54	78	67.5	5.21	0.32	N 80 E	4.96	7.00	39.6	17.5	22.1	3.05	4.0	0.3	2.7	0.80	
22	43.83	2.59	90	15.8	28.895	0.67	S 2 W	15.88	17.43	39.8	35.6	14.6	2.75	8.3	...	...	...
23	30.88	1.37	70	31.4	29.177	0.98	N 78 W	9.32	10.15	24.5	2.6	...	...	...	...	...	...
24	20.48	.086	77	39.8	5.12	0.58	N 59 W	10.04	10.57	23.4	13.6	9.8	...	...	...	...	...
25	18.42	.067	68	76.8	7.00	0.63	N 68 W	8.01	8.75	35.6	12.2	23.4	...	...	...	...	...
26	...	...	...	...	...	...	S 31 W	2.32	4.86	35.3	29.8	13.6	...	...	...	...	...
27	40.22	1.81	85	81.4	6.33	0.73	N 81 W	8.28	8.53	27.0	33.5	3.5	2.30	5.0	...	...	...
28	34.27	1.69	84	98.4	8.14	1.00	N 75 E	3.70	3.99	41.5	32.0	9.5	3.85	21.0	...	...	...
29	37.90	2.22	96	73.8	5.16	1.00	N 52 E	...	...	...	...	...	...	...	...	...	...
...	22.83	0.112	81	29.632	29.520	0.67	N 61 W	3.28	8.73	26.48	15.32	14.11	1.330	45.5	18.8	69.8	3.210	115.3

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT—MARCH, 1860.

Days	DAILY MEANS.						WIND.				EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometrical Pressure.	Dry Air.	Clouded Sky.	Direction.	Force.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate Duration in Hours.	Depth in Inches.	Approximate Duration in Hours.	Depth in Inches.	Approximate Duration in Hours.	
1	42.85	0.262	95	29.409	29.237	1.00	S 83 E	3.12	46.5	38.0	8.5	0.017	3.0	0.017	3.0	0.017	3.0		
2	40.15	1.184	74	29.785	.002	0.38	N 69 W	3.90	48.4	35.0	13.4	0.15	4.0	0.015	4.0	0.015	4.0		
3	41.07	1.173	68	3.344	.172	0.77	S 69 W	13.76	50.2	34.2	16.0	7.5	...	2.0	2.0	...	2.0		
4	...	...	...	...	...	...	N 83 W	14.52	37.0	29.5	7.5	...	...	0.2	...	...	...
5	31.63	1.137	76	3.351	.214	0.28	N 63 E	4.60	37.2	28.5	8.7	...	...	0.1	...	...	...
6	33.08	1.153	81	3.543	.390	0.67	N 78 E	12.35	37.2	28.2	9.0	...	...	...	...	...	...
7	45.42	2.322	73	3.193	28.961	0.33	W	7.94	32.4	32.4	30.1	...	...	...	...	...	...
8	40.35	1.130	72	4.450	29.320	0.67	N 63 W	13.07	47.5	38.8	8.7	...	...	...	...	...	...
9	26.57	0.924	67	4.111	.317	0.85	N 49 W	19.28	44.2	26.0	8.2	...	...	...	...	...	...
10	23.77	0.885	65	3.541	.456	0.92	N 52 W	18.02	38.5	15.0	13.5	...	...	...	...	...	...
11	...	...	...	...	...	...	N 75 W	6.61	39.0	24.0	15.0	...	...	...	...	...	...
12	18.28	0.715	74	3.582	.507	0.42	N 31 W	19.81	22.0	19.2	2.8	...	...	...	...	...	...
13	25.65	1.069	78	3.800	.680	0.63	S 55 W	4.06	30.4	12.8	17.6	...	...	...	...	...	...
14	34.00	1.145	72	3.753	.698	0.13	S 82 W	2.70	33.1	23.4	20.1	...	...	...	...	...	...
15	36.17	1.149	70	3.885	.736	0.00	S 25 W	1.92	32.2	26.6	19.4	...	...	...	...	...	...
16	35.83	1.162	73	3.864	.702	0.00	S 74 E	3.07	45.0	28.0	18.5	...	...	...	...	...	...
17	40.18	1.175	71	3.864	.675	0.02	N 75 E	3.86	43.2	28.0	19.2	...	...	...	...	...	...
18	...	...	...	...	...	...	N 73 E	5.80	41.0	33.0	18.0	...	...	...	...	...	...
19	40.78	1.225	89	3.531	.302	0.62	N 62 E	0.89	37.5	7.5	7.5	...	...	...	...	...	...
20	34.60	1.148	71	4.000	.252	0.90	N 58 W	29.38	43.3	35.0	8.3	...	...	...	...	...	...
21	24.78	0.882	60	3.691	.699	0.22	N 44 W	28.77	28.3	29.4	17.8	...	...	...	...	...	...
22	31.07	0.909	55	4.483	.383	0.23	N 51 W	20.00	24.8	38.8	22.7	...	...	...	...	...	...
23	30.33	1.131	80	3.324	.190	0.57	N 82 W	5.46	10.8	35.0	26.0	...	...	...	...	...	...
24	25.68	1.107	76	3.205	.160	0.95	N 64 W	17.14	17.50	28.4	9.0	...	...	...	...	...	...
25	...	...	...	...	...	...	N 53 W	16.16	16.44	31.2	21.4	...	...	...	...	...	...
26	25.35	0.788	59	3.680	.602	0.40	N 39 W	10.10	10.66	32.8	20.2	...	...	...	...	...	...
27	33.78	1.131	68	3.511	.380	0.68	S 47 W	12.28	13.63	43.0	21.0	...	...	...	...	...	...
28	31.30	1.131	74	3.303	.174	0.55	N 82 W	12.81	14.71	37.4	28.0	...	...	...	...	...	...
29	30.07	1.135	58	3.303	.174	0.18	N 86 W	4.45	6.13	55.0	28.8	...	...	...	...	...	...
30	45.65	1.189	67	2.252	.043	0.33	S 45 W	10.82	11.52	57.5	29.0	...	...	...	...	...	...
31	53.20	2.270	64	3.108	28.838	1.00	N 84 W	7.96	10.66	67.0	41.5	...	...	...	...	...	...
	34.48	0.148	71	29.511	29.363	0.49	N 64 W	7.61	12.41	41.80	27.35	14.54	0.882	22.0	2.4	22.4	1.122	44.4	

* Inappreciable.

* Inappreciable.

22.83	0.112	81	29.632	29.520	0.67	N 61 W	3.28	8.73	29.43	13.11	1.330	45.5	18.8	69.8	3.210	115.3
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TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—APRIL, 1860.

Days.	DAILY MEANS.					EXTREMES OF TEMPERATURE.				RAIN.		SNOW.		RAIN AND MELTED SNOW.				
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Force.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.		
1	26.42	0.685	57	29.439	29.414	...	N 35 W	19.93	29.069	39.5	35.0	4.5	...	...	0.010	1.0
2	40.33	.191	76	.680	28.889	0.55	South.	2.84	9.57	32.7	13.5	13.2	...	...	...	...
3	43.70	.213	75	.609	28.796	0.67	N 69 E.	7.05	7.64	32.4	26.8	25.6	...	...	.410	58
4	39.43	.176	72	.211	29.635	0.63	N 81 W	6.94	9.26	32.2	19.8	12.5	0.410	5.8	.010	0.2		
5	41.42	.198	75	.608	.410	0.45	S 16 W	2.83	5.72	49.0	32.0	17.0	...	...	.052	5.8
6	42.08	.202	75	.613	.411	0.88	N 4 E	5.03	7.48	57.0	39.0	18.0	...	...	...	...
7	41.83	.242	90	.441	.199	1.00	N 2 W	6.30	9.15	50.0	35.8	14.2	...	...	.135	1.3
8	39.33	.170	72	.641	.471	0.53	N 27 W	4.51	6.13	50.2	34.8	15.4	...	...	.045	0.5
9	40.53	.189	77	.516	.316	0.52	S 77 W	11.86	15.49	51.0	27.6	23.4	...	...	.160	6.4
10	40.72	.200	79	.552	.352	0.67	N 87 W	14.91	18.07	52.4	33.8	18.6	...	...	...	...
11	27.90	.111	72	.705	.594	0.38	N 61 W	14.06	14.63	32.8	26.0	6.8	...	...	...	...
12	39.00	.202	84	.496	.294	0.92	S 86 E	9.24	10.10	34.2	21.5	12.7	...	...	...	...
13	40.33	.175	68	.742	.568	0.37	N 73 W	6.93	7.73	43.6	30.2	13.4	...	...	.129	2.5
14	33.90	.115	61	30.191	30.076	0.90	S 85 E	3.80	5.90	41.0	25.0	16.0	...	...	.080	1.5
15	43.73	.179	63	29.860	29.681	0.62	N 47 W	6.50	7.05	50.2	28.2	22.0	...	...	.100	4.0
16	44.88	.285	95	.490	.205	1.00	N 25 E	2.33	2.78	50.0	40.8	9.2	...	...	.140	8.1
17	40.42	.298	84	.435	.137	1.00	N 11 E	7.83	8.75	53.3	42.5	10.8	...	...	.070	7.0
18	36.98	.151	68	.616	.465	0.50	N 25 W	12.88	13.27	44.2	37.5	6.7	...	...	...	...
19	32.71	.143	71	.582	.439	0.97	N 75 W	15.24	15.83	41.8	28.8	13.0	...	...	...	...
20	33.85	.141	73	.524	.383	0.58	N 40 W	15.89	16.18	39.0	31.0	8.0	...	...	...	...
21	36.70	.151	69	.756	.605	0.69	N 46 W	10.03	10.22	45.0	29.0	16.0	...	...	...	...
22	40.87	.160	64	.881	.721	0.27	S 31 W	6.12	7.05	49.5	28.0	21.6	...	...	...	...
23	41.63	.193	73	.838	.645	0.00	N 79 E	4.11	5.62	51.0	32.8	18.2	...	...	...	...
24	50.72	.257	70	.577	.320	0.13	N 67 E	3.97	4.50	54.2	35.0	19.2	...	...	...	...
25	39.55	0.185	74	29.378	29.393	0.50	N 37 W	4.10	10.30	47.04	32.19	14.84	1.282	40.6	0.3	7.2	1.312	47.8

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—MAY, 1866.

Days.	DAILY MEANS.				Clouded Sky.	WIND.			EXTREMES OF TEMPERATURE.		RAIN.		SNOW.		RAILS AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vacuum.	Relative Humidity.	Barometrical Pressure.		Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.
1	41.30	0.291	77	29.710	0.98	N 36 W	11.65	47.2	42.0	5.2	0.033	2.0	0.022	2.0	0.022	2.0	
2	46.90	0.260	79	29.835	0.45	N 30 W	4.40	37.0	32.5	24.5	0.015	2.5	0.015	2.5	0.015	2.5	
3	53.58	0.258	68	29.714	0.47	S 63 W	1.19	63.8	40.2	23.6	0.015	2.5	0.015	2.5	0.015	2.5	
4	56.92	0.318	69	29.640	0.12	S 37 W	2.20	39.0	47.8	21.2	0.015	2.5	0.015	2.5	0.015	2.5	
5	56.13	0.289	66	29.628	0.65	S 43 W	1.07	63.2	48.0	19.2	0.015	2.5	0.015	2.5	0.015	2.5	
6	62.02	0.419	79	29.508	0.73	N 80 E	4.39	53.4	41.2	24.6	0.015	2.5	0.015	2.5	0.015	2.5	
7	59.78	0.421	82	29.515	1.00	N 63 W	2.96	73.2	50.3	22.9	0.015	2.5	0.015	2.5	0.015	2.5	
8	57.02	0.414	89	29.383	1.00	N 9 E	3.53	64.5	56.2	8.3	0.015	2.5	0.015	2.5	0.015	2.5	
9	54.30	0.381	80	29.562	28.969	N 68 E	6.40	9.41	63.2	54.2	9.0	0.015	2.5	0.015	2.5	0.015	2.5
10	57.03	0.391	84	29.181	1.00	N 61 E	4.98	5.77	63.0	52.0	11.0	0.015	2.5	0.015	2.5	0.015	2.5
11	57.03	0.391	84	29.181	0.93	N 49 E	8.89	9.11	62.5	50.8	11.7	0.015	2.5	0.015	2.5	0.015	2.5
12	58.45	0.408	83	29.752	0.72	N 52 E	8.64	9.22	65.0	52.0	13.0	0.015	2.5	0.015	2.5	0.015	2.5
13	61.18	0.366	67	29.592	0.15	S 82 E	1.15	47.0	70.0	52.4	17.6	0.015	2.5	0.015	2.5	0.015	2.5
14	56.12	0.285	63	29.662	0.00	N 75 E	2.75	4.80	63.2	52.2	11.0	0.015	2.5	0.015	2.5	0.015	2.5
15	59.42	0.295	59	29.668	0.00	N 65 E	5.46	7.32	67.0	46.6	20.4	0.015	2.5	0.015	2.5	0.015	2.5
16	55.03	0.296	68	29.720	0.43	N 56 E	8.28	9.68	60.0	49.0	11.0	0.015	2.5	0.015	2.5	0.015	2.5
17	54.05	0.370	88	29.426	0.63	N 64 E	4.06	4.97	61.8	48.5	13.3	0.015	2.5	0.015	2.5	0.015	2.5
18	52.25	0.308	76	29.852	0.72	N 72 W	15.78	16.52	60.1	49.0	11.1	0.015	2.5	0.015	2.5	0.015	2.5
19	41.50	0.224	85	29.165	0.00	N 36 W	4.56	10.54	53.0	37.0	16.0	0.015	2.5	0.015	2.5	0.015	2.5
20	51.43	0.301	78	29.881	0.27	S 12 W	5.37	8.22	65.0	40.8	22.2	0.015	2.5	0.015	2.5	0.015	2.5
21	50.83	0.276	75	29.773	0.05	S 27 E	1.14	3.37	61.8	41.0	20.8	0.015	2.5	0.015	2.5	0.015	2.5
22	54.58	0.297	79	29.686	0.55	N 59 E	3.89	4.89	62.0	44.4	17.6	0.015	2.5	0.015	2.5	0.015	2.5
23	61.43	0.328	62	29.500	0.53	N 57 E	7.23	7.76	69.2	52.0	17.2	0.015	2.5	0.015	2.5	0.015	2.5
24	53.40	0.416	80	29.885	0.42	N 1 W	4.59	8.83	71.0	49.8	21.2	0.015	2.5	0.015	2.5	0.015	2.5
25	57.02	0.342	71	29.197	0.27	S 82 W	1.95	4.56	67.5	50.2	15.4	0.015	2.5	0.015	2.5	0.015	2.5
26	59.47	0.352	71	29.572	0.85	N 57 E	8.28	8.97	68.6	49.5	19.1	0.015	2.5	0.015	2.5	0.015	2.5
27	62.95	0.451	79	29.319	0.60	S 17 W	2.70	6.57	74.5	53.5	21.0	0.015	2.5	0.015	2.5	0.015	2.5
28	59.15	0.430	85	29.927	1.00	N 76 W	5.30	7.79	67.0	56.5	10.5	0.015	2.5	0.015	2.5	0.015	2.5
29	59.53	0.338	76	29.566	0.57	N 26 E	2.66	7.17	63.97	47.79	16.18	0.015	2.5	0.015	2.5	0.015	2.5
30	59.53	0.338	76	29.566	0.57	N 26 E	2.66	7.17	63.97	47.79	16.18	0.015	2.5	0.015	2.5	0.015	2.5
31	59.53	0.338	76	29.566	0.57	N 26 E	2.66	7.17	63.97	47.79	16.18	0.015	2.5	0.015	2.5	0.015	2.5

* Inappreciable.

* Inappreciable.

35.55	0.185	74	29.578	29.393	0.59	N 57 W	4.10	10.30	47.04	32.19	14.84	1.282	40.6	0.3	7.2	1.312	47.8
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TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—JUNE, 1860.

Days.	DAILY MEANS.					WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapor.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Cloudy Sky.	Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	60.83	0.814	60	29.542	29.228	0.48	S 35 W	12.95	12.98	71.6	53.4	17.8	...	...	...	...	...
2	63.92	2.94	50	588	.294	0.17	West	3.40	5.82	75.3	54.8	20.7	...	...	...	...	...
3	...	...	...	...	...	...	S 30 W	5.37	5.06	71.8	50.2	21.6	...	...	...	...	...
4	57.33	4.39	91	.002	28.562	1.00	N 58 E	3.77	4.83	66.0	56.8	9.2	0.375	5.0	...	0.375	5.0	
5	60.98	4.23	78	1.14	28.691	0.78	N 36 W	12.06	12.13	66.0	57.0	9.0	*	1.0	...	...	...
6	57.85	3.58	74	1.95	28.837	0.67	N 86 E	4.81	7.13	66.0	54.4	11.6	.033	1.0	...	...	...
7	58.08	3.65	76	1.38	28.773	0.63	N 72 W	5.40	6.65	71.0	53.3	17.7	.045	2.5	...	...	...
8	58.18	3.44	76	1.97	28.833	0.85	N 74 W	15.95	16.84	62.5	49.2	13.3	.015	2.5	...	...	...
9	57.32	2.77	59	.411	29.134	0.48	N 41 W	20.44	20.61	65.0	52.0	13.0	...	...	...	...	...
10	...	...	...	...	...	...	S 39 W	14.56	14.71	68.0	49.2	18.8	...	...	...	...	...
11	67.15	3.93	60	.538	145	0.25	N 40 W	4.83	8.27	80.4	51.5	28.9	...	...	...	...	...
12	62.62	3.71	65	.381	210	0.03	N 74 E	2.66	4.10	70.8	53.0	17.8	...	...	...	...	...
13	63.85	2.99	53	.907	308	0.40	N 59 E	4.33	5.54	74.0	51.8	22.2	...	...	...	...	...
14	65.63	3.95	64	.569	175	0.42	N 88 W	2.49	5.00	78.8	52.8	26.0	.040	2.7	...	...	...
15	64.95	4.84	78	.589	104	0.62	N 37 W	5.68	7.58	75.0	58.2	16.8	.295	4.0	...	...	...
16	60.70	4.00	75	.703	303	0.70	N 19 W	7.79	7.85	66.5	54.0	12.5	...	...	...	...	...
17	...	...	...	...	...	...	S 26 W	2.53	3.44	76.0	56.4	19.6	...	...	...	...	...
18	64.58	4.63	76	.504	.041	0.77	S 79 E	3.91	4.35	72.8	56.8	16.0	*	...	...	...	...
19	63.62	4.82	81	3.19	28.837	0.58	N 75 W	5.23	6.32	74.0	57.2	16.8	.475	2.0	...	...	...
20	66.03	4.61	73	4.03	28.942	0.58	N 25 W	5.01	6.59	76.8	55.0	21.8	*	0.5	...	...	...
21	58.55	4.34	88	.654	20.220	1.00	N 50 E	7.72	7.98	61.0	50.0	2.0	.005	3.1	...	...	...
22	60.38	3.33	64	8.26	.463	0.40	N 79 E	4.35	5.24	69.2	55.5	13.7	...	...	...	...	...
23	63.75	4.32	73	.814	.382	0.23	S 13 W	1.90	4.23	75.0	49.5	25.5	...	...	...	...	...
24	68.48	5.12	74	.774	.382	0.37	S 77 E	3.56	4.40	70.8	59.0	20.8	...	...	...	...	...
25	68.80	5.47	78	1.31	.181	0.77	N 24 W	3.76	4.70	76.8	63.4	11.4	.063	4.0	...	...	...
27	63.68	3.81	65	1.766	385	0.13	N 84 E	5.29	5.58	69.8	60.2	9.6	...	...	...	...	...
28	71.23	5.57	73	.517	28.960	0.57	S 16 W	7.02	7.96	81.6	54.0	27.6	.040	0.5	...	...	...
29	69.40	6.24	86	.303	28.682	0.90	S 81 W	7.70	8.48	79.0	68.4	10.6	.750	7.0	...	...	...
30	65.70	3.71	58	.554	29.184	0.63	N 72 W	6.63	8.56	78.8	60.0	18.8	...	...	...	...	...
...	63.16	0.414	71	29.498	29.084	0.58	N 44 W	3.13	7.61	72.58	55.33	17.24	2.136	34.8	2.136	34.8

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—JULY, 1860.

Date	DAILY MEANS.				WIND.		EXTREMES OF TEMPERATURE.		RAIN.		SNOW.		RAIN AND MELTED SNOW.			
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometre Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	65.27	0.456	73	29.655	29.189	0.53	N 57 E	2.63	6.60	69.2	50.2	19.0	...	...	...	...
2	65.97	.498	84	.498	.000	1.00	S 0 E	4.01	3.84	73.0	54.2	18.8	...	...	...	...
3	63.67	.499	80	.498	.818	1.00	N 56 E	4.03	3.40	68.2	60.0	8.2	...	...	...	...
4	61.98	.499	84	.498	.347	0.80	N 53 E	7.33	9.28	69.4	63.5	5.9	.115	2.0	.870	14.5
5	61.57	.416	77	.405	28.989	0.80	N 6 E	5.03	7.52	72.0	54.7	17.3	.005	1.0	.005	1.0
6	61.52	.348	64	.640	29.292	0.30	N 66 E	5.39	6.53	68.5	53.7	14.8	...	...	...	...
7	65.78	.408	65	.611	.203	0.05	S 71 E	4.03	5.50	73.6	52.5	21.1	...	...	...	...
8	65.33	.499	79	.364	28.865	0.28	S 30 E	4.03	6.65	71.4	58.0	13.4	.480	7.0	.480	7.0
9	60.67	.498	79	.617	29.209	0.58	S 88 W	12.19	12.43	72.8	63.2	9.6	...	...	...	...
10	58.88	.314	63	.795	.481	0.22	N 32 W	3.67	3.15	70.5	52.2	18.3	...	...	...	...
11	62.42	.348	63	.818	.470	0.27	N 40 W	4.75	8.07	68.0	49.6	18.4	...	...	...	...
12	63.75	.441	75	.747	.306	0.05	N 27 W	8.52	8.72	70.4	50.2	20.2	...	...	...	...
13	63.75	.441	75	.747	.306	0.05	S 36 W	1.76	3.93	72.5	52.5	20.0	...	...	...	...
14	64.70	.446	74	.673	.227	0.05	S 17 W	5.41	6.32	77.0	52.0	25.0	...	...	...	...
15	68.38	.482	72	.493	.011	0.40	S 42 W	3.46	4.81	77.0	55.6	21.4	.075	2.0	.075	2.0
16	62.85	.417	74	.654	.237	0.12	N 65 W	8.75	11.49	83.8	63.2	20.6	.013	1.5	.013	1.5
17	63.18	.521	89	.325	.005	0.73	S 7 W	3.46	4.45	72.5	53.0	19.5	...	...	...	...
18	73.00	.585	70	.486	28.901	0.47	S 45 E	2.57	4.35	71.2	55.0	16.2	.510	8.3	.510	8.3
19	69.58	.470	66	.499	29.029	0.48	N 80 W	7.89	8.93	88.0	62.7	25.3	...	...	...	...
20	66.93	.442	64	.324	28.881	0.32	S 44 W	4.35	4.97	81.8	61.9	19.9	...	...	...	...
21	66.93	.442	64	.324	28.881	0.32	N 58 W	14.70	15.47	76.0	62.2	13.8	.475	1.0	.475	1.0
22	65.68	.323	66	.384	29.061	0.30	S 73 E	3.59	5.12	70.0	54.2	15.8	*	0.1	*	0.1
23	63.25	.323	57	.532	.209	0.77	N 60 W	12.52	13.23	68.5	53.0	15.5	...	...	...	...
24	63.25	.417	71	.644	.227	0.43	S 75 W	8.06	9.53	74.5	43.8	30.7	...	...	...	...
25	67.37	.335	80	.538	.003	0.70	S 11 E	2.39	4.06	70.8	52.5	18.3	...	...	...	...
26	60.00	.330	64	.735	.405	0.07	N 62 W	5.58	7.57	78.6	69.0	9.6	.160	1.7	.160	1.7
27	62.43	.343	62	.679	.336	0.65	S 45 E	1.23	6.35	65.0	55.0	11.0	...	...	...	...
28	66.38	.500	77	.460	28.960	0.53	N 61 E	6.73	7.28	67.5	49.0	18.5	.655	5.0	.655	5.0
29	66.38	.500	77	.460	28.960	0.53	N 39 W	4.07	7.27	74.0	61.2	12.8	.935	4.0	.935	4.0
30	61.27	.346	64	.542	29.195	0.18	S 57 W	1.99	2.93	74.0	54.8	19.2	.043	0.3	.043	0.3
31	63.92	0.427	72	29.564	29.137	0.43	N 36 W	11.44	11.68	72.0	61.6	10.4	...	...	...	...
32	63.92	0.427	72	29.564	29.137	0.43	N 60 W	2.15	7.29	72.99	53.85	17.15	4.336	48.4	4.336	48.4

* Inappreciable.

* Inappreciable.

63.16	0.414	71	29.498	29.084	0.58	N 44 W	3.13	7.61	72.58	55.33	17.24	2.136	34.8	2.136	34.8
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TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—AUGUST, 1860.

Days	DAILY MEANS.				Clouded Sky.	WIND.			Extremes of Temperature.			RAIN.		SNOW.		RAIN AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapour.	Humidity.	Barometric Pressure.		Pressure of Dry Air.	Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.
1	50.98	0.333	66	29.738	29.405	0.30	S 10 W	3.07	68.2	48.0	20.2	...	...	...	...	...	...
2	62.67	.461	81	29.728	29.267	0.25	N 81 E	1.47	71.0	49.8	21.2	...	...	...	...	...	...
3	65.08	.543	87	29.529	28.986	0.87	S 25 E	1.79	68.5	60.0	8.5	0.125	2.5	0.125	...	...	...
4	71.85	.522	70	29.533	29.011	0.33	N 74 W	7.79	83.2	62.8	20.4	...	...	...	...	...	...
5	67.83	.560	82	29.606	29.046	0.13	N 81 E	4.01	73.8	50.8	14.0	...	...	...	...	...	...
6	73.82	.608	84	29.404	28.766	0.30	S 88 E	2.25	75.4	58.5	16.9	...	...	...	...	...	...
7	72.08	.476	62	29.456	28.980	0.30	N 74 W	2.74	84.6	63.2	19.4	...	...	...	...	...	...
8	67.87	.529	78	29.485	28.956	0.40	N 83 W	3.56	87.0	67.0	20.0	...	...	...	...	...	...
9	65.08	.463	72	29.513	29.050	0.40	S 43 W	3.56	4.27	76.8	62.1	14.7	...	...	...	...	...
10	65.08	.463	72	29.513	29.050	0.68	N 65 W	7.14	10.41	79.8	57.5	22.3	...	...	...	...	...
11	58.42	.339	49	29.691	29.351	0.05	S 22 E	1.55	6.09	73.4	49.0	24.4	...	...	...	...	...
12	57.32	.346	75	29.596	29.250	0.63	N 9 W	2.60	6.39	73.5	49.4	24.1	...	...	...	...	...
13	56.47	.366	73	29.803	29.439	0.20	N 36 W	10.22	10.28	66.0	53.6	12.4	...	...	...	...	...
14	59.23	.384	76	29.879	29.495	0.27	N 21 W	4.56	6.33	64.4	50.0	14.4	...	...	...	...	...
15	60.07	.403	78	29.780	29.377	0.57	S 18 E	3.14	4.49	67.6	48.0	19.6	...	...	...	...	...
16	66.03	.461	73	29.603	29.142	0.47	S 68 E	3.48	4.34	68.0	51.0	17.0	...	...	...	...	...
17	66.03	.461	73	29.603	29.142	0.47	N 82 W	0.69	3.93	74.5	53.5	21.0	...	...	...	...	...
18	68.73	.535	75	29.489	28.964	0.28	N 47 W	3.15	5.53	78.0	61.2	16.8	...	...	...	...	...
19	68.85	.551	79	29.576	29.025	0.73	S 70 W	2.45	5.04	75.4	59.2	16.2	...	...	...	...	...
20	67.47	.529	79	29.691	29.132	0.60	N 85 W	1.39	4.20	80.6	64.8	15.8	...	...	...	...	...
21	65.38	.453	71	29.671	29.118	0.10	S 86 W	1.27	4.66	73.5	59.2	16.3	...	...	...	...	...
22	67.02	.461	80	29.533	28.991	0.62	N 79 E	3.33	4.66	73.0	56.8	16.2	...	...	...	...	...
23	66.08	.537	87	29.422	28.865	0.77	N 71 E	3.96	6.37	61.2	46.4	14.8	...	...	...	...	...
24	64.80	.478	78	29.409	28.931	0.82	N 15 W	0.87	4.94	73.2	62.0	11.2	...	...	...	...	...
25	58.80	.365	74	29.500	29.031	0.30	N 53 W	11.58	11.67	71.8	61.6	10.2	...	...	...	...	...
26	56.67	.306	67	29.603	29.135	0.30	N 50 W	3.24	4.55	73.0	53.8	19.2	...	...	...	...	...
27	60.58	.338	68	29.648	29.07	0.23	N 81 W	8.28	9.20	68.4	54.0	14.4	...	...	...	...	...
28	62.78	.403	72	29.399	28.912	0.05	N 53 W	2.96	4.13	67.0	46.8	20.2	...	...	...	...	...
29	62.78	.403	72	29.399	28.912	0.42	S 20 W	3.70	4.26	69.5	52.0	17.5	...	...	...	...	...
30	62.78	.403	72	29.399	28.912	0.40	S 49 W	4.98	7.82	73.4	49.5	23.9	...	...	...	...	...
31	61.46	0.463	76	29.582	29.119	0.43	N 63 W	6.93	8.29	73.5	57.0	16.5	...	...	...	...	...
32	61.46	0.463	76	29.582	29.119	0.43	N 70 W	1.83	5.80	73.73	56.26	17.46	3.405	40.4	...	...	...

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—SEPTEMBER, 1860.

Days	DAILY MEANS.				WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Humidity.	Barometre.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resilient Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.
1	54.43	0.255	62	29.650	29.395	0.65	N 35 W	7.86	8.06	61.2	50.8	13.4	...	...	...	...	...
2	59.47	.386	76	.881	.495	0.00	S 27 W	1.73	2.64	65.8	45.2	20.6	...	...	...	...	...
3	65.07	.532	84	.755	.203	0.83	N 65 E	4.65	4.93	66.6	45.8	20.8	...	...	...	...	...
4	69.75	.617	85	.674	.056	0.85	N 23 E	2.83	2.83	72.2	54.0	18.2	...	...	...	...	...
5	68.15	.429	67	.725	.296	0.38	N 48 W	2.21	5.45	75.8	62.6	13.2	...	...	...	...	...
6	66.57	.492	72	.592	.100	0.77	N 35 W	1.45	4.33	74.2	61.5	9.7	...	...	...	...	...
7	66.57	.360	83	.683	.323	0.82	N 43 E	1.37	3.45	72.5	55.8	16.7	0.20	1.8	...	...	0.20
8	54.13	...	...	...	...	0.22	N 9 E	6.77	7.09	66.0	52.2	13.8	.520	7.5	...	...	.520
9	53.95	...	...	...	...	0.60	N 24 W	4.54	5.77	62.2	45.2	17.0	...	...	...	...	...
10	49.69	.284	77	.592	.238	0.38	N 64 W	3.32	4.92	62.8	46.0	16.8	...	...	...	...	...
11	46.37	.191	62	.755	.562	0.42	N 39 W	8.39	19.92	59.0	44.8	14.2	.170	5.2	...	...	.170
12	54.00	.270	66	.851	.582	0.07	N 39 W	10.47	10.55	52.8	39.0	13.8	...	...	...	...	...
13	59.62	.378	76	.867	.489	0.07	N 67 W	3.80	3.91	67.0	38.8	28.2	...	...	...	...	...
14	63.92	.473	79	.712	.239	0.22	S 3 W	3.59	3.67	70.8	45.7	25.1	...	...	...	...	...
15	57.85	...	...	...	...	0.30	S 18 W	5.54	5.64	72.0	49.2	22.8	.610	2.5	...	...	.610
16	57.07	.372	80	.703	.331	0.30	S 20 W	4.30	4.65	65.5	62.5	3.2	.657	5.0	...	...	.657
17	60.38	.462	86	.579	.117	0.73	S 80 W	1.69	1.87	68.0	51.5	16.5	...	...	...	...	...
18	63.42	.363	88	.394	.031	0.68	S 79 E	0.75	1.65	65.2	48.9	16.3	...	...	...	...	...
19	47.80	.239	74	.526	.287	0.25	N 16 W	2.13	2.59	69.2	51.2	18.0	...	...	...	...	...
20	55.98	.321	73	.511	.190	0.55	N 73 W	6.20	7.76	69.2	55.8	13.4	.060	4.0	...	...	.060
21	58.88	.384	78	.367	.289	0.95	S 80 W	7.96	8.46	59.4	41.6	17.8	...	...	...	...	...
22	53.82	.279	69	.343	.290	0.40	S 60 W	7.36	8.77	66.8	40.6	26.2	.017	1.8	...	...	.017
23	47.05	.204	66	.775	.571	0.30	N 81 E	4.21	4.57	67.8	39.2	18.6	...	...	...	...	...
24	46.09	.244	73	.765	.525	0.83	S 48 W	5.72	6.20	63.0	50.0	13.0	.130	4.1	...	...	.130
25	42.47	.151	61	.890	.910	0.58	N 89 W	11.82	12.23	64.0	50.8	13.2	.005	0.2	...	...	.005
26	39.90	...	...	...	...	0.30	N 76 W	8.89	8.96	56.5	41.6	14.9	...	...	...	...	...
27	42.47	...	...	...	...	0.33	N 74 W	3.03	4.70	52.0	41.4	10.6	.080	1.2	...	...	.080
28	42.47	...	...	...	...	0.43	N 44 W	10.40	10.68	52.0	40.2	11.8	...	...	...	...	...
29	39.90	...	...	...	...	0.58	S 12 W	1.09	1.88	45.2	35.2	10.0	...	...	...	...	...
30	N 74 E	4.75	5.13	44.8	28.7	16.1	.290	2.5290
31	55.34	0.342	74	29.073	29.332	0.48	N 71 W	2.63	5.79	63.12	47.29	15.83	1.959	36.2	1.959
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* Inappreciable.

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT—OCTOBER, 1860.

Days	DAILY MEANS.				Clouded Sky.	WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Humidity.	Barometre Pressure.		Pressure of Dry Air.	Direction.	Residual Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	47.20	0.301	92	29.672	29.371	1.00	N 44 E	1.42	49.8	37.2	12.6	0.325	7.5	...	...	.325	7.5
2	50.25	.307	85	29.665	.459	1.00	S 27 W	1.11	54.2	46.4	7.8	...	...	...	...	...	...
3	53.93	.320	77	28.46	.526	0.80	S 84 E	2.19	4.88	59.2	49.4	9.8	6.5	...	...	.040	6.5
4	54.60	.380	89	29.671	.291	1.00	S 63 E	1.09	1.14	59.0	50.2	8.8	0.065	...	...	.005	3.5
5	52.97	.306	76	29.22	.416	0.43	N 29 W	8.42	9.08	64.0	52.0	12.0	...	...	...	...	...
6	37.77	.176	78	28.70	.693	0.02	N 78 W	0.81	4.20	53.0	29.8	23.2	...	...	...	...	...
7	N 81 E	1.31	2.78	53.2	33.8	19.4	1.15	4.2115	4.2
8	46.68	.227	70	29.235	.007	0.75	N 46 W	11.87	18.13	52.6	43.0	7.6	...	...	...	...	...
9	42.97	.224	80	29.301	.077	0.97	N 79 W	5.42	5.51	48.0	38.0	10.0	...	...	...	...	...
10	51.80	.303	77	29.144	.28, 8.41	0.73	S 39 W	10.02	11.28	59.2	40.2	19.0	...	...	...	...	...
11	42.27	.178	65	29.430	.29, 2.53	0.47	N 59 W	11.07	11.38	51.5	45.7	5.8	...	...	...	...	...
12	37.45	.158	71	29.711	.553	0.42	N 86 W	7.01	7.27	45.8	28.4	17.4	...	...	...	...	...
13	39.33	.176	73	29.821	.645	0.42	N 39 W	1.57	5.37	46.2	30.5	15.7	...	...	...	...	...
14	...	...	...	...	...	...	N 24 E	4.23	6.21	48.5	38.0	10.5	...	...	...	...	...
15	41.37	.198	75	29.758	.360	0.63	S 82 W	4.75	6.38	49.2	37.9	11.7	...	...	...	...	...
16	47.98	.271	79	29.586	.316	0.63	S 75 W	3.94	10.29	55.2	35.0	20.2	1.90	4.8190	4.8
17	43.42	.199	71	29.558	.639	0.68	N 7 E	10.63	10.83	49.0	40.2	8.8	...	...	...	...	...
18	44.20	.229	79	29.961	.732	1.00	N 20 E	3.80	3.91	49.0	39.0	10.0	...	...	...	...	...
19	47.08	.261	81	29.891	.630	0.62	N 10 E	4.29	6.23	53.0	39.0	14.0	...	...	...	...	...
20	47.50	.246	75	29.798	.532	1.00	N 7 E	11.20	11.37	52.5	44.8	7.7	1.73	7.5173	7.5
21	...	...	...	...	...	...	N 70 E	12.08	12.13	51.5	44.5	7.0	...	...	...	...	...
22	40.20	.339	97	29.615	.376	1.00	S 85 E	6.41	6.45	51.4	48.0	3.4	1.15	2.8220	8.5
23	49.18	.353	96	29.480	.135	1.00	S 77 E	1.83	3.12	52.8	43.0	4.8	...	...	...	...	...
24	48.45	.300	87	29.540	.240	0.62	S 75 W	2.72	3.10	55.0	43.4	11.6	1.05	3.1105	3.1
25	48.65	.294	86	29.530	.236	0.73	N 70 W	1.98	5.33	55.1	38.8	16.3	...	...	...	...	...
26	43.02	.223	80	29.746	.623	0.13	N 41 W	6.90	7.28	51.0	41.0	10.0	...	...	...	...	...
27	42.70	.233	83	29.910	.676	0.77	N 74 E	11.10	11.66	48.2	33.8	14.4	...	...	...	...	...
28	S 69 E	5.45	9.21	55.5	44.0	11.5	2.25	7.5225	7.5
29	52.13	.341	87	29.799	.458	0.50	S 84 W	3.78	6.12	60.0	51.5	8.5	...	...	...	...	...
30	53.55	.363	89	29.743	.350	1.00	S 88 E	5.21	5.81	62.4	44.0	18.4	.010	0.5010	0.5
31	48.03	.415	87	29.706	.291	1.00	N 33 W	0.63	4.84	68.0	52.0	16.0	...	...	...	...	...
...	47.25	.272	81	29.671	29.399	0.70	N 9 W	2.00	6.93	53.05	41.58	12.06	1.618	66.6	1.618	66.6

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—NOVEMBER, 1860.

Days	DAILY MEANS.					WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.	Dry Air.	Clouded Sky.	Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.
1	58.88	0.424	79	29.777	29.343	0.60	N 55 E	10.77	11.71	64.5	53.2	11.3	...	4.2	...	0.125	4.2	
2	57.37	.375	92	.722	.349	1.70	N 78 E	15.52	16.36	60.2	57.2	3.0	...	...	...	.572	3.0
3	51.02	.347	99	.422	.135	1.00	S 7 E	3.71	8.43	54.0	51.0	3.0	...	8.0	...	.412	8.0
4	40.87	.155	61	.424	.269	...	S 56 W	15.05	15.35	49.0	40.8	8.2	...	0.5	*	.050	0.5	
5	36.33	.158	73	.577	.419	0.35	N 81 W	7.81	8.45	44.2	31.8	12.4	...	...	...	...	...
6	33.67	.149	78	.817	.668	0.33	N 63 W	7.66	8.04	40.4	29.0	11.4	...	...	...	...	...
7	34.30	.152	77	.854	.702	0.33	N 40 E	3.28	4.35	40.2	30.5	9.7	...	...	...	...	...
8	38.95	.203	85	.317	.314	0.97	N 50 E	14.93	15.14	43.5	31.2	12.3	...	...	...	.818	14.0
9	39.45	.219	90	.270	.051	1.00	N 13 W	11.15	11.98	40.5	38.2	2.3	...	...	...	.065	9.5
10	...	...	...	...	...	...	N 30 W	9.07	9.17	45.4	38.0	7.4	...	...	...	...	...
11	41.28	.191	74	.462	.301	0.28	N 33 W	10.37	10.48	49.5	37.0	12.5	...	...	...	...	...
12	39.45	.199	82	.739	.540	0.33	N 29 W	7.36	7.45	47.2	33.8	13.4	...	...	...	...	...
13	38.97	.190	78	.814	.624	0.08	N 72 W	3.14	4.16	48.0	30.5	17.5	...	...	...	...	...
14	39.32	.204	85	.884	.630	0.82	N 31 W	5.59	5.65	47.8	32.5	15.3	...	...	...	...	...
15	40.58	.213	84	.794	.581	1.00	N 36 E	1.91	2.19	43.4	37.0	6.4	...	...	...	.150	9.5
16	43.22	.264	94	.433	.169	1.00	N 14 W	2.49	3.12	45.5	41.0	4.5	...	...	...	.055	4.5
17	...	...	...	...	...	...	S 43 W	12.61	13.37	42.0	38.5	3.5	...	...	...	...	...
18	39.33	.176	71	.287	.781	0.85	S 69 W	13.15	13.36	39.4	33.0	6.4	...	...	...	...	...
19	32.25	.136	75	.297	.171	0.40	N 81 W	13.68	13.90	39.4	33.0	6.4	...	...	...	...	...
20	30.45	.140	83	.523	.883	0.95	S 89 W	8.72	8.88	36.2	24.0	12.2	...	...	...	...	...
21	36.33	.166	78	.587	.421	0.92	S 27 W	13.27	14.87	40.0	30.2	9.8	...	...	...	...	...
22	39.17	.213	89	.294	.391	1.00	S 38 W	14.45	15.31	40.7	33.8	6.9	...	...	...	.200	5.5
23	37.93	.074	74	.174	.100	0.75	S 67 W	27.40	27.45	27.5	15.6	11.9	...	...	...	.132	10.2
24	...	...	...	...	...	...	S 74 W	18.38	18.40	20.2	13.2	7.0	...	...	...	...	...
25	26.97	.138	88	.711	.573	0.83	S 12 E	9.04	11.56	41.0	16.0	25.0	...	...	...	.180	6.5
26	33.87	.157	78	.611	.453	0.60	S 83 W	13.74	14.21	41.0	26.2	14.8	...	...	...	...	...
27	28.82	.113	71	.695	.582	0.28	S 60 W	4.94	5.34	34.8	23.0	11.8	...	...	...	...	...
28	36.27	.162	76	.268	.106	0.85	S 46 W	7.36	7.47	43.2	27.0	16.2	...	...	...	.230	4.6
29	31.60	.133	83	.003	.851	1.00	N 34 W	15.18	15.39	37.2	33.5	3.7	...	...	...	.092	6.5
30
31	37.95	0.195	80	29.523	29.327	0.70	S 89 W	4.95	11.02	43.23	33.53	9.70	2.569	82.4	1.9	20.9	2.750	103.3

* Inappreciable.

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GENERAL METEOROLOGICAL ABSTRACT.—DECEMBER, 1860.

Days	DAILY MEANS.				WIND.			Extremes of Temperature.			RAIN.		SNOW.		RAIN AND SNOW.			
	Temperature of the Air.	Pressure of Vapour.	Humidity.	Barometre Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Approximate depth in inches.	
1	23.28	0.101	81	29.242	29.140	1.00	N 53 W	20.47	20.73	25.2	21.2	4.0	...	...	0.1	3.0	0.010	3.0
2	31.22	155	88	575	420	1.00	N 75 W	14.65	14.79	30.8	21.8	9.0	...	...	*	0.2	*	0.2
3	28.58	135	87	488	353	1.00	N 6 W	5.24	6.79	33.0	28.8	4.2	...	...	*	3.0	*	3.0
4	23.70	113	90	402	287	0.88	N 53 W	7.69	7.89	31.8	28.0	3.7	...	...	*	7.0	0.010	7.0
5	26.25	129	90	307	178	0.88	S 44 W	5.86	6.95	30.0	21.9	8.1	...	...	*	0.2	*	0.2
6	30.32	139	83	574	435	0.52	N 31 W	4.96	5.83	36.0	23.0	7.4	...	...	1.0	8.5	0.100	8.5
7	24.92	117	87	852	735	0.88	N 1 W	3.60	5.83	30.0	24.0	6.0	...	...	...	...	...	...
8	...	...	...	...	...	...	S 68 W	2.95	5.56	35.2	24.2	11.0	...	...	...	...	...	...
9	31.20	165	94	259	074	1.00	N 20 W	6.93	9.57	29.0	19.5	9.5	...	...	...	...	...	...
10	20.75	684	74	501	417	0.70	S 82 W	11.87	14.18	28.0	13.0	15.0	...	...	...	...	...	...
11	25.20	108	79	174	066	0.82	S 69 W	18.75	19.04	28.0	13.0	15.0	...	...	...	...	...	...
12	11.25	063	84	580	517	0.12	N 68 W	11.73	12.75	17.6	13.5	4.1	...	...	...	...	...	...
13	1.08	037	79	30189	30152	0.18	N 8 W	5.30	5.63	9.0	-7.0	16.0	...	...	...	...	...	...
14	13.20	061	78	29.989	29.928	0.60	N 56 E	1.45	6.18	24.0	1.3	22.7	...	...	...	...	...	...
15	...	...	...	...	...	...	S 60 W	8.47	8.52	34.5	11.0	23.5	...	...	...	...	...	...
16	23.98	105	81	30.049	944	1.00	N 28 E	6.89	7.89	26.0	21.4	4.6	...	...	...	...	...	...
17	21.92	119	87	30.929	910	1.00	N 75 E	17.45	17.70	33.8	19.0	14.8	...	...	...	...	...	...
18	35.45	196	95	29.434	238	1.00	S 84 E	8.78	8.98	37.8	23.5	14.3	...	...	...	...	...	...
19	37.05	178	86	28.997	28.820	0.95	S 89 W	11.05	13.25	39.0	35.2	3.8	...	...	...	...	...	...
20	21.15	136	87	29.256	29.100	0.88	N 9 W	8.34	10.17	31.2	27.3	3.7	...	...	...	...	...	...
21	...	...	...	...	...	...	N 86 W	10.02	10.48	25.8	21.4	4.4	...	...	...	...	...	...
22	18.30	084	84	961	876	0.75	S 82 W	5.58	5.56	22.5	10.4	12.1	...	...	...	...	...	...
23	...	...	...	...	...	...	N 61 W	6.49	7.12	24.4	13.8	10.6	...	...	...	...	...	...
24	...	...	...	...	...	...	N 16 W	9.63	9.74	29.7	15.4	8.3	...	...	...	...	...	...
25	23.88	110	85	30.658	948	0.90	N 42 W	10.23	10.27	28.0	19.0	9.0	...	...	...	...	...	...
26	25.80	121	86	30.189	30.068	1.00	N 37 W	7.80	8.28	28.8	23.5	5.3	...	...	...	...	...	...
27	21.70	101	86	30.170	30.069	0.95	N 66 E	9.15	10.64	28.0	18.0	10.0	...	...	...	...	...	...
28	31.03	150	86	29.880	29.730	1.00	S 20 E	9.21	13.64	34.2	18.2	16.0	...	...	...	...	...	...
29	...	...	...	...	...	...	S 73 W	10.79	11.01	25.0	16.0	9.0	...	...	...	...	...	...
30	...	...	...	...	...	...	S 66 W	10.91	11.05	25.5	15.0	10.5	...	...	...	...	...	...
31	17.82	076	79	30.062	986	0.83	S 66 W	10.91	11.05	25.5	15.0	10.5	...	...	...	...	...	...
...	24.00	0115	84	29.667	29.551	0.83	N 62 W	4.66	10.14	28.79	19.25	9.54	1.362	24.0	13.5	68.4	2.712	92.4

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT—JANUARY, 1861.

Days.	DAILY MEANS.							WIND.				EXTREMES of TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapor.	Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.		
1	27.60	0.109	72	29.781	29.672	0.97	S 62 W	8.80	30.2	15.0	15.2	...	...	...	...	...	...	...
2	28.75	.140	88	7.08	.568	0.97	N 29 W	2.45	7.03	25.0	7.0	...	...	...	...	...	...	...
3	15.12	.075	86	6.85	.560	0.70	N 17 W	8.15	8.33	18.0	16.0	...	...	...	...	...	...	...
4	17.17	.081	84	7.03	.622	0.60	S 71 W	9.91	11.13	9.3	12.9	...	...	...	...	...	...	...
5	19.98	.089	85	8.84	.765	0.83	S 66 W	9.68	9.96	24.0	14.0	...	...	...	...	...	...	...
6	...	...	...	...	...	...	S 81 E	3.74	5.35	32.0	18.0	...	...	...	...	...	...	...
7	23.00	.118	94	4.17	.299	...	N 21 E	5.66	7.60	29.4	23.0	...	...	...	...	...	...	...
8	21.42	.103	90	7.16	.613	0.95	N 12 W	3.08	3.20	24.5	17.0	...	...	...	...	...	...	...
9	22.43	.107	89	4.19	.312	1.00	N 12 E	3.86	6.21	25.0	18.5	...	...	...	...	...	...	...
10	11.63	.071	87	4.55	.385	0.38	N 47 W	12.42	13.83	23.2	15.6	...	...	...	...	...	...	...
11	0.12	.043	54	6.01	.558	1.00	N 18 E	11.87	12.71	4.0	-4.8	...	...	...	...	...	...	...
12	-4.15	.082	83	9.04	.872	0.28	N 16 W	7.16	7.25	-1.2	-7.0	...	...	...	...	...	...	...
13	...	...	...	...	...	...	N 64 E	1.93	14.78	14.0	-11.2	...	...	...	...	...	...	...
14	22.67	.113	90	7.18	.605	0.92	N 38 E	5.86	6.55	27.3	8.0	...	...	...	...	...	...	...
15	27.38	.140	94	5.51	.411	1.00	N 63 E	13.75	13.86	29.8	20.5	...	...	...	...	...	...	...
16	32.53	.181	98	1.16	28.935	1.00	S 10 E	1.25	11.19	35.5	24.8	...	...	...	...	...	...	...
17	26.60	.128	88	7.03	29.575	1.00	N 49 W	6.29	7.53	30.0	26.2	...	...	...	...	...	...	...
18	28.02	.145	94	4.15	.271	1.00	N 39 E	4.41	12.37	37.0	24.0	...	...	...	...	...	...	...
19	29.88	.147	87	3.60	.213	1.00	S 16 W	16.31	16.42	32.2	26.8	...	...	...	...	...	...	...
20	...	...	...	...	...	...	N 85 W	7.55	7.62	23.5	20.4	...	...	...	...	...	...	...
21	12.45	.066	85	9.56	.890	0.02	S 73 W	5.21	5.44	22.0	6.0	...	...	...	...	...	...	...
22	7.47	.055	86	30.272	30.217	0.00	N 70 W	2.60	2.73	18.0	-2.6	...	...	...	...	...	...	...
23	21.82	.100	83	30.176	30.076	0.95	...	...	14.40	30.0	6.7	23.3	...	...	...	...	...	...
24	30.38	.161	95	29.530	29.369	0.68	S 5 W	5.06	15.37	33.8	24.2	...	...	...	...	...	...	...
25	15.03	.067	75	6.99	.632	0.30	S 65 W	9.81	9.88	24.2	14.7	...	...	...	...	...	...	...
26	11.25	.065	85	7.96	.730	0.68	N 77 W	6.95	3.25	21.0	1.7	...	...	...	...	...	...	...
27	...	...	...	...	...	...	S 32 W	2.67	7.68	30.0	8.5	...	...	...	...	...	...	...
28	25.37	.112	82	5.84	.471	0.77	S 33 W	9.07	10.45	30.2	21.0	...	...	...	...	...	...	...
29	28.43	.146	91	2.60	.115	0.97	S 75 W	13.97	15.21	35.0	24.5	...	...	...	...	...	...	...
30	19.35	.093	87	6.14	.522	0.67	S 71 W	13.24	14.10	24.8	13.0	...	...	...	...	...	...	...
31	15.75	.078	88	6.53	.575	0.98	S 60 W	7.80	7.83	17.6	15.0	...	...	...	...	...	...	...
	19.86	0.102	88	29.652	29.549	0.76	N 86 W	2.92	9.30	25.14	13.93	11.21	0.685	14.5	20.6	93.6	2.745	108.1		

* Inappreciable.

* Inappreciable.

30	...	...	...	...	...	...	S 73 W	10.79	11.01	25.0	16.0	...	...	...	...	...	...	...	...
31	17.82	.076	79	30.062	.986	0.83	S 66 W	10.91	11.05	25.5	15.0	...	...	...	...	...	...	...	...
	24.00	0.115	84	29.667	29.551	0.83	N 62 W	4.66	10.14	28.79	19.25	9.54	1.362	24.0	13.5	68.4	2.712	92.4	

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—FEBRUARY, 1861.

Days	DAILY MEANS.					WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometrie Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	20.50	0.11	93	29.462	29.351	0.90	N 76 E	7.50	8.09	33.2	5.0	2.2	...	...	7.0	10.5	0.700	10.5
2	26.35	1.33	92	372	237	1.00	N 52 W	11.63	11.86	30.4	22.7	7.1	...	...	...	...	...	...
3	26.83	1.31	89	387	706	0.95	S 85 W	5.30	7.19	22.4	9.3	13.1	...	...	...	...	...	...
4	26.67	1.25	87	664	538	0.83	S 59 W	7.24	7.63	31.4	12.1	19.3	...	...	*	*	*	*
5	24.67	1.05	77	240	135	0.88	S 57 W	7.88	8.19	30.2	25.6	4.6	...	...	0.1	2.5	0.10	2.5
6	24.55	1.05	77	240	135	0.88	N 88 W	9.27	16.16	35.0	22.8	12.2	...	...	2.0	3.8	2.00	3.8
7	7.72	0.80	81	529	499	0.75	N 44 W	19.67	19.75	9.0	49.8	18.8	...	...	8.0	5.1	8.00	5.1
8	5.23	0.83	90	30.100	30.067	0.92	N 60 W	3.91	6.39	8.2	20.8	29.0	...	...	0.5	4.0	0.60	4.0
9	18.10	0.90	89	29.960	29.860	1.00	N 70 E	6.96	7.62	29.8	22.6	32.4	...	...	*	3.0	*	3.0
10	41.52	2.50	95	305	115	0.97	N 49 E	3.51	3.97	43.0	16.9	26.1	...	...	...	...	...	...
11	33.70	1.68	86	296	099	0.88	N 50 E	3.95	4.08	44.6	37.6	7.0	...	...	3.00	7.0	3.00	7.0
12	30.28	1.45	86	753	607	0.55	N 55 W	0.39	12.37	34.2	29.6	4.6	...	...	0.2	4.5	0.20	4.5
13	28.85	1.31	82	662	531	1.00	N 63 E	19.85	20.06	32.0	25.0	7.0	...	...	0.45	4.5	0.45	4.5
14	32.03	1.76	97	108	88	1.00	S 76 E	1.62	10.34	33.4	28.2	5.2	...	...	1.0	7.0	1.45	11.5
15	31.27	1.40	79	214	29.074	0.37	S 58 W	6.85	8.22	34.8	31.0	3.8	...	...	6.0	14.5	6.00	14.5
16	27.25	1.19	79	505	386	1.00	S 72 W	10.69	10.78	32.2	25.0	7.2	...	...	0.3	8.0	0.60	8.0
17	27.50	1.38	90	399	261	0.87	S 76 W	9.63	9.78	30.2	27.0	3.2	...	...	0.1	4.5	0.10	4.5
18	27.50	1.38	90	399	261	0.87	S 19 E	7.56	9.32	32.6	19.2	13.4	...	...	...	...	...	...
19	27.50	1.45	81	163	018	0.83	S 85 W	12.89	13.34	36.0	27.5	8.5	...	...	...	...	...	...
20	23.87	0.89	70	553	464	0.52	N 60 W	20.06	20.17	29.2	22.5	6.7	...	...	...	...	...	...
21	23.87	0.89	70	553	464	0.52	N 76 E	10.44	11.13	26.0	13.2	12.8	...	...	*	0.5	*	0.5
22	21.02	0.97	85	716	619	0.88	N 76 E	10.44	11.13	26.0	13.2	12.8	...	...	2.0	16.0	2.00	16.0
23	29.60	1.39	83	176	637	1.00	S 57 W	3.31	16.43	36.4	16.0	20.4	...	...	4.30	7.1	4.30	7.1
24	29.67	1.28	76	734	606	0.83	N 39 W	13.01	14.57	19.7	8.0	11.7	...	...	...	...	...	...
25	33.40	1.46	76	761	615	0.13	S 45 W	12.31	12.58	39.2	8.1	31.1	...	...	...	...	...	...
26	36.15	1.66	78	847	680	0.45	N 21 W	0.66	1.51	44.8	27.8	17.0	...	...	...	...	...	...
27	36.15	1.66	78	847	680	0.45	N 77 W	3.76	5.12	43.5	25.4	18.1	...	...	...	...	...	...
28	37.32	1.87	84	655	468	0.97	N 54 W	3.04	6.18	46.0	32.8	13.2	...	...	0.40	2.5	0.40	2.5
	26.06	0.130	84	29.544	29.414	0.83	N 77 W	3.86	10.58	32.37	18.54	13.83	...	...	29.7	93.6	3.785	114.7

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—MARCH, 1861.

DAY.	DAILY MEANS.				WIND.				EXTREME OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapour.	Humidity.	Baromet. Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.
1	36.72	0.206	85	29.515	29.339	0.98	N 50 W	0.42	2.60	41.2	34.4	6.8	0.007	2.0	...	0.007	2.0
2	37.42	.209	93	.339	.129	1.06	S 35 W	0.48	1.81	43.2	34.2	9.0	.080	2.0	...	.170	3.5
3	...	...	...	...	...	...	S 85 W	5.47	6.85	47.4	35.0	12.4	170	3.5	...	...	...
4	29.35	109	66	.403	.294	0.45	S 85 W	15.27	17.25	38.8	31.8	7.0	...	...	...	...	...
5	19.55	.080	76	.652	.372	0.63	S 80 W	16.81	17.83	24.6	11.8	12.8	...	...	...	...	...
6	17.47	.068	68	.682	.514	0.28	N 55 W	21.37	22.62	25.0	18.2	6.8	...	...	...	...	...
7	8.20	.055	84	30.055	30.000	0.00	S 74 E	1.72	6.64	24.4	3.5	27.9	...	...	...	...	...
8	33.12	1.49	77	29.482	29.333	0.97	N 44 E	2.45	9.76	42.6	9.3	33.3	...	...	...	...	...
9	34.63	1.62	81	.313	.151	0.58	N 87 W	8.45	9.69	39.8	32.2	7.6	...	...	...	...	...
10	...	...	...	...	...	...	N 23 W	14.30	14.34	25.4	19.1	6.3	...	...	...	...	...
11	24.90	116	81	.705	.679	0.50	S 35 W	13.36	14.23	33.6	9.3	24.3	...	...	...	...	...
12	27.10	111	74	.639	.528	1.06	N 51 E	8.38	11.61	32.0	24.8	7.2	...	...	...	...	...
13	21.35	.091	80	.779	.688	0.40	N 10 W	9.24	10.52	28.2	18.8	9.4	...	...	...	...	...
14	20.38	.088	79	.825	.738	0.42	N 45 E	2.96	5.18	26.0	17.0	9.0	...	...	...	...	...
15	26.77	1.19	81	.658	.539	0.27	S 11 W	3.37	3.88	33.8	14.8	19.0	...	...	...	...	...
16	28.12	1.22	74	.319	.197	0.67	N 56 W	13.30	15.81	41.0	22.2	21.8	...	...	...	...	...
17	...	...	...	...	...	...	N 30 W	13.65	13.79	9.2	0.2	9.0	...	...	...	...	...
18	3.48	.041	77	30.103	30.068	0.35	N 38 E	0.25	0.70	9.8	5.2	15.0	...	...	...	...	...
19	12.77	.059	75	29.355	29.896	0.22	N 49 E	4.87	5.23	19.4	3.5	15.9	...	...	...	...	...
20	22.20	.093	81	.662	.563	0.83	N 67 E	7.96	11.16	27.0	12.6	14.4	...	...	...	...	...
21	25.32	1.13	83	.609	.496	0.53	N 34 W	9.47	10.02	32.2	20.5	11.7	...	...	...	...	...
22	30.37	1.31	77	1.722	.592	0.03	N 61 W	2.11	3.61	38.9	22.5	16.4	...	...	...	...	...
23	34.47	1.78	88	.265	.087	1.00	S 55 W	9.03	13.17	40.4	25.0	15.4	...	...	...	...	...
24	...	...	...	...	...	...	N 78 W	14.07	15.55	31.5	23.4	8.1	...	...	...	...	...
25	36.18	1.83	85	.638	.455	1.00	N 31 E	4.22	5.65	39.9	25.8	14.1	...	...	...	...	...
26	38.97	2.27	95	.294	.067	1.00	N 74 E	6.77	8.36	42.8	34.2	8.6	...	...	...	...	...
27	37.22	1.90	84	.314	.124	0.88	S 82 W	17.29	18.71	45.0	35.8	9.2	...	...	...	...	...
28	32.02	1.40	77	.844	.704	0.95	N 77 W	3.24	8.73	38.4	25.4	13.0	...	...	...	...	...
29	...	...	...	...	...	...	N 47 E	5.62	11.12	43.8	32.4	11.4	...	...	...	...	...
30	31.63	1.38	78	.720	.581	0.53	N 41 W	13.36	13.87	35.0	31.5	3.5	...	...	...	...	...
31	...	...	...	...	...	...	S 89 E	10.29	10.45	33.2	25.0	8.2	...	...	...	...	...
26.92	0.127	80	29.621	29.493	0.62	N 54 W	4.33	10.56	33.53	20.71	12.82	2.125	55.2	7.1	44.5	2.835	99.7

* Inappreciable.

* Inappreciable.

26.06	0.130	84	29.544	29.414	0.83	N 77 W	3.86	10.38	32.37	18.54	13.83	0.815	21.1	29.7	93.6	3.755	114.7
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GENERAL METEOROLOGICAL ABSTRACT.—APRIL, 1861.

Date.	DAILY MEANS.				Clouded Sky.	WIND.			EXTREMES OF TEMPERATURE.		RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.		Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	32.86	0.162	89	29.611	1.00	S 89 E	12.22	16.38	28.6	28.3	5.3	*	6.0	14.5	.606	15.0	
2	32.55	1.50	81	757	0.70	N 63 W	3.20	3.75	36.4	27.0	9.4	...	...	...	...	...
3	32.63	1.48	81	948	0.90	N 70 E	0.67	1.28	39.0	23.8	15.2	...	...	...	...	...
4	34.28	1.36	79	30.041	0.85	N 84 E	1.83	2.24	38.8	26.1	9.7	...	...	...	...	...
5	37.80	1.26	56	29.947	0.45	N 57 E	2.27	3.23	45.0	28.9	16.1	...	...	...	...	...
6	41.47	1.51	58	884	0.45	N 80 E	12.95	12.98	46.8	34.8	12.0	...	...	...	...	...
7	40.30	1.91	75	669	0.72	N 85 E	13.02	13.20	43.5	36.0	7.5	...	...	...	...	...
8	43.87	1.83	56	640	0.53	N 70 E	14.63	14.70	50.2	36.4	13.8	0.15	1.0	...	...	...
9	44.13	1.47	53	739	0.60	N 67 E	2.31	4.47	53.8	30.8	17.0	0.15	0.5	...	...	...
10	47.88	2.01	39	633	0.23	N 87 E	7.32	7.78	56.8	35.2	21.6	...	...	...	...	...
11	47.83	2.87	87	436	1.00	S 78 E	4.30	4.60	58.0	41.0	17.0	0.72	4.5	...	...	...
12	48.62	3.01	88	215	0.78	S 77 W	3.09	5.78	60.8	42.5	18.3	0.315	6.5	...	...	...
13	48.62	3.01	88	215	0.78	S 77 W	3.09	5.78	60.8	42.5	18.3	*	0.5	...	...	...
14	...	...	...	...	...	N 76 W	13.56	13.79	43.5	41.0	2.5	...	...	...	...	...
15	35.95	1.70	80	631	0.95	N 42 E	1.38	2.88	39.0	34.2	4.8	...	...	...	...	...
16	38.50	1.46	62	492	0.90	N 32 E	12.54	13.57	43.9	32.0	11.9	...	...	...	...	...
17	36.03	1.25	60	260	0.32	N 38 E	15.09	16.76	44.5	32.2	12.3	...	...	...	...	...
18	32.45	1.58	86	218	0.60	N 21 E	4.94	5.40	35.2	27.6	7.6	...	...	...	...	...
19	36.27	1.60	74	505	0.18	N 34 W	12.12	12.33	48.0	29.6	18.4	...	...	...	...	...
20	41.30	1.91	72	587	0.52	S 52 W	6.63	7.40	50.0	27.0	23.0	...	...	...	...	...
21	...	...	...	...	0.52	East	5.96	7.68	55.2	33.8	21.4	0.25	1.0	...	...	...
22	54.77	3.07	70	339	0.75	S 79 W	2.32	8.62	97.0	41.3	25.2	0.065	0.4	...	...	...
23	49.02	3.04	87	490	0.87	N 68 E	2.10	4.92	51.8	47.2	4.6	0.037	1.2	...	...	...
24	50.02	2.45	71	328	0.58	S 63 W	11.99	13.10	62.3	41.8	20.5	0.005	0.2	...	...	...
25	43.98	1.76	61	579	0.42	N 69 W	10.19	10.83	52.2	40.0	12.2	...	...	...	...	...
26	43.27	1.94	69	644	0.32	S 89 E	9.19	9.56	49.4	32.0	17.4	...	...	...	...	...
27	48.67	2.86	82	217	0.85	N 82 E	6.12	9.21	58.3	40.2	18.1	6.15	6.2	...	...	...
28	...	...	...	...	...	N 52 W	10.13	11.62	59.2	43.2	16.0	...	...	...	...	...
29	51.03	2.66	70	418	0.57	S 40 W	3.41	5.56	66.2	37.4	28.8	...	...	...	...	...
30	48.12	2.36	70	434	0.88	N 39 W	5.28	8.08	58.0	45.0	13.0	0.315	6.8	0.5	0.2	3.35	7.3
	42.02	0.199	73	29.564	0.61	N 37 E	2.31	8.90	45.71	35.55	14.36	1.619	29.3	22.0	6.9	2.309	51.3

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—MAY, 1861.

DAYS.	DAILY MEANS.				Clouded %.	WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		HAY AND MELTED SNOW.			
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometre.		Pressure of Dry Air.	Direction.	Force.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	
1	34.93	0.143	70	29.668	29.525	N 37 W	21.332	21.62	41.0	32.5	8.5	...	...	0.050	1.0	...	...
2	36.03	0.146	69	29.817	29.671	N 43 W	5.220	7.23	45.4	28.0	17.4	...	...	...	...	...	...
3	37.72	0.123	56	29.691	29.536	N 70 E	5.27	6.32	44.5	32.0	12.5	...	...	...	...	...	...
4	42.57	0.136	51	29.632	29.516	S 37 W	1.44	4.44	49.8	32.0	17.8	...	...	...	...	...	...
5	...	...	...	...	...	N 89 E	11.33	11.46	54.8	31.8	23.0	...	...	0.260	2.2	...	...
6	47.75	0.204	89	28.973	28.679	N 22 E	4.04	15.96	53.2	43.0	10.2	...	...	1.845	10.3	...	...
7	49.52	0.205	75	28.872	28.697	S 76 W	14.99	15.53	55.5	45.4	10.1	...	...	1.100	5.4	...	...
8	44.17	0.206	72	29.322	29.116	N 40 W	8.74	9.06	50.5	40.4	10.1	...	...	...	...	...	...
9	44.93	0.224	74	29.585	29.361	S 26 E	2.08	2.59	54.0	32.8	21.2	...	...	...	...	...	...
10	45.05	0.221	76	29.309	29.138	N 69 E	6.71	7.17	49.6	37.8	11.8	...	...	...	...	...	...
11	43.58	0.270	79	29.416	29.146	S 43 W	0.69	2.92	57.4	43.5	13.9	...	...	...	...	...	...
12	...	...	...	...	...	S 61 E	1.70	3.07	60.2	42.8	17.4	...	...	...	...	...	...
13	47.82	0.296	89	29.391	29.095	N 82 E	7.07	7.51	50.2	45.2	5.0	...	...	...	...	...	...
14	50.45	0.259	71	29.407	29.148	S 79 W	11.06	11.27	54.8	44.4	10.4	...	...	0.020	6.0	...	...
15	48.90	0.246	73	29.457	29.211	S 62 W	3.72	7.16	60.2	37.8	22.4	...	...	...	...	...	...
16	44.33	0.210	73	29.548	29.338	N 75 W	15.00	15.15	50.4	41.0	9.4	...	...	...	...	...	...
17	42.28	0.162	60	29.775	29.613	N 37 W	14.23	14.65	50.0	36.2	13.8	...	...	...	...	...	...
18	44.13	0.208	71	29.872	29.664	N 86 W	1.22	6.41	53.0	32.6	20.4	...	...	...	...	...	...
19	...	...	...	...	...	N 52 E	7.24	7.54	48.4	40.0	8.4	...	...	...	...	...	...
20	50.53	0.252	69	29.578	29.326	N 51 E	3.64	7.91	57.8	44.6	13.2	...	...	...	...	...	...
21	52.70	0.188	48	29.694	29.506	S 22 W	11.65	11.83	61.0	45.2	15.8	...	...	...	...	...	...
22	52.45	0.236	59	29.310	29.1575	S 54 W	1.14	2.47	60.9	41.3	19.6	...	...	...	...	...	...
23	50.90	0.249	67	29.779	29.530	S 77 E	4.10	4.44	50.8	37.8	22.0	...	...	...	...	...	...
24	56.82	0.318	68	29.497	29.179	S 47 W	6.40	8.98	68.0	45.0	23.0	...	...	0.625	3.2	...	...
25	62.25	0.419	74	29.389	29.1571	N 60 W	10.78	11.08	73.0	53.5	19.5	...	...	...	...	...	...
26	...	...	...	...	...	N 87 E	1.79	7.10	65.2	51.0	14.2	...	...	...	...	...	...
27	47.33	0.251	76	29.686	29.435	N 61 W	27.39	27.96	55.8	47.9	7.9	...	...	...	...	...	...
28	48.00	0.197	60	29.553	29.356	N 45 W	10.28	11.50	60.5	40.4	20.1	...	...	...	...	...	...
29	45.32	0.215	69	29.777	29.562	N 47 W	4.81	6.07	55.0	42.2	12.8	...	...	...	...	...	...
30	51.62	0.233	60	29.910	29.677	S 33 W	4.22	4.64	61.4	33.0	55.4	...	...	...	...	...	...
31	54.80	0.286	67	29.868	29.583	S 73 E	2.52	3.72	63.2	40.2	25.0	...	...	...	...	...	...
	47.50	0.232	69	29.545	29.313	N 47 W	3.60	9.17	55.6	40.0	13.65	3.380	47.9	0.5	1.0	3.430	48.9

* Inappreciable.

* Inappreciable.

42.02	0.199	73	29.564	29.365	0.61	N 37 E	2.31	8.90	49.71	35.55	14.36	1.619	29.3	6.9	2.20	2.309	51.3
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GENERAL METEOROLOGICAL ABSTRACT.—JUNE, 1861.

Days	DAILY MEANS.				WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		EAV AND MELTED SNOW.					
	Temperature of the Air.	Pressure of Vapor.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Height Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.		
1	57.82	0.273	60	29.767	29.494	0.50	S 45 E	0.60	1.35	69.8	42.2	27.6	0.541	9.0	0.541	9.0	0.541	9.0		
2	65.93	.497	76	.891	28.894	0.60	S 56 E	3.03	5.15	64.4	48.0	16.4	0.541	...	...	...	...	...
3	52.30	.278	71	.652	29.374	0.73	N 88 E	10.68	15.04	74.8	53.0	21.8	...	...	...	...	...	...
4	51.40	.290	69	.676	29.417	0.73	N 88 E	6.77	7.72	56.2	53.0	3.2	...	4.0	...	...	...	...
5	51.47	.348	81	.699	29.551	0.92	N 75 E	11.63	11.66	54.6	47.0	7.6	.598	...	...	...	...	...
6	54.47	.348	81	.699	29.551	0.92	N 75 E	3.22	4.11	62.0	48.2	13.8	*	0.1	...	...	...	...
7	58.68	.403	82	.695	29.62	0.75	N 52 E	0.73	3.94	66.8	51.5	15.3	*	0.1	...	...	...	...
8	67.60	.437	64	.711	29.74	0.18	N 16 W	4.08	5.19	75.6	52.8	22.8	...	...	...	...	...	...
9	...	...	...	...	...	...	N 20 W	9.74	10.68	87.8	63.4	24.4	...	...	...	...	...	...
10	72.22	.516	65	.691	29.685	0.00	N 35 W	3.72	4.42	85.0	55.5	29.5	...	...	...	...	...	...
11	72.46	.549	69	.432	28.883	0.28	N 76 W	3.68	4.34	84.0	57.8	26.2	.006	1.0	...	...	...	...
12	65.00	.375	61	.485	29.110	0.17	N 49 W	15.05	13.31	73.2	62.5	10.7	...	...	...	...	...	...
13	57.30	.286	61	.720	29.434	0.07	N 35 W	4.75	5.62	66.2	51.2	15.0	...	2.5	...	...	...	...
14	55.28	.315	72	.578	29.262	0.68	N 83 E	2.10	2.46	61.2	41.0	19.6	.140	2.5	...	...	...	...
15	65.42	.320	83	.228	28.708	0.78	S 71 W	5.98	8.10	73.8	51.0	22.8	.191	3.5	...	...	...	...
16	...	...	...	...	...	...	N 14 W	14.11	14.33	65.0	56.5	8.5	...	...	...	...	...	...
17	54.08	.253	60	.700	29.447	0.12	S 13 E	0.26	2.94	60.8	44.2	16.6	...	...	...	...	...	...
18	54.60	.308	71	.549	29.241	0.57	S 30 W	1.58	1.63	63.0	41.8	21.2	*	0.2	...	...	...	...
19	61.98	.452	80	.472	29.020	0.52	N 55 W	2.73	4.85	71.4	48.5	22.9	.299	2.3	...	...	...	...
20	60.33	.380	74	.578	28.189	0.47	S 86 E	1.78	5.42	66.8	54.3	12.5	.312	2.5	...	...	...	...
21	59.12	.406	81	.368	28.962	0.57	N 70 W	3.87	5.68	69.8	51.2	18.6	...	...	...	...	...	...
22	66.75	.371	60	.436	29.065	0.20	N 76 W	6.12	6.62	79.0	50.2	28.8	...	...	...	...	...	...
23	...	...	...	...	...	...	N 33 W	8.02	8.87	71.4	53.8	17.6	.038	1.5	...	...	...	...
24	59.68	.421	63	.634	29.313	0.13	S 76 W	3.26	3.33	68.4	46.4	22.0	...	...	...	...	...	...
25	64.35	.321	71	.571	29.143	0.33	S 55 E	1.56	2.16	71.5	51.0	19.9	...	...	...	...	...	...
26	68.97	.398	58	.470	29.072	0.38	N 68 W	8.38	9.24	73.0	50.5	19.5	*	0.1	...	...	...	...
27	62.30	.390	71	.654	29.255	0.37	S 39 W	3.20	4.01	72.4	50.0	22.4	...	...	...	...	...	...
28	61.52	.344	62	.606	29.262	0.50	N 86 W	1.14	2.36	73.5	54.6	18.9	*	0.1	...	...	...	...
29	61.58	.311	57	.574	29.63	0.15	S 18 W	3.40	4.32	71.5	47.2	24.3	...	...	...	...	...	...
30	...	...	...	...	...	...	N 13 W	1.12	2.23	72.0	49.0	23.0	.204	5.5	...	...	...	...
...	61.29	0.377	69	29.570	29.192	0.45	N 39 W	2.29	6.11	70.36	51.26	19.11	2.329	32.3	...	...	...	...
...	2.329	32.3

* Imappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT—JULY, 1861.

Days.	DAILY MEAN				Clouded Sky.	WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.		Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Height in Inches.	Duration in hours.	Height in Inches.	Duration in hours.	Height in Inches.	Duration in hours.
1	56.28	0.327	67	29.562	0.73	N 2 1/2 W	6.17	6.35	61.6	53.5	11.1	...	...	...	...	...	...
2	54.47	0.277	66	28.722	0.62	N 44 W	9.16	9.25	47.0	47.0	20.2	...	...	...	...	...	...
3	65.30	0.378	58	28.680	0.25	N 87 W	1.39	3.40	78.5	49.4	29.1	...	...	...	...	...	...
4	67.53	0.480	70	28.682	0.08	S 1 E	3.00	2.57	80.0	51.2	28.8	...	...	...	...	...	...
5	69.77	0.477	65	28.589	0.05	South	3.00	3.32	81.4	55.0	26.4	...	...	...	...	...	...
6	69.93	0.500	69	28.564	0.52	S 9 W	1.89	1.90	80.8	59.6	21.2	...	...	...	...	...	...
7	73.85	0.658	79	28.427	0.57	S 18 W	2.11	2.17	84.5	61.4	23.1	...	...	...	...	...	...
8	72.02	0.506	75	28.722	0.72	S 24 W	4.76	4.91	84.2	65.8	18.4	0.635	0.5	0.035	0.5	0.1	0.1
9	61.38	0.438	77	28.722	0.72	N 81 W	4.86	5.29	83.0	65.0	18.0	...	...	...	...	...	...
10	61.38	0.438	77	28.722	0.72	S 12 E	5.91	8.30	75.2	55.8	19.4	...	...	...	...	...	...
11	57.98	0.352	73	28.589	0.53	N 39 W	8.01	8.35	61.2	53.2	8.0	0.013	2.0	0.745	11.2	0.745	11.2
12	57.98	0.352	73	28.589	0.53	N 42 W	8.87	9.67	64.8	47.2	17.6	...	...	...	...	...	...
13	59.92	0.390	76	28.719	0.72	N 19 W	0.45	1.94	69.6	54.0	15.6	...	...	...	...	...	...
14	...	...	...	...	...	S 16 E	0.69	1.35	71.4	50.8	20.6	...	...	...	...	...	...
15	59.75	0.441	66	28.645	1.00	N 38 W	0.63	0.99	65.2	51.6	13.6	...	...	...	...	...	...
16	61.30	0.479	71	28.563	0.48	N 69 W	2.35	3.35	74.0	57.2	16.8	...	...	...	...	...	...
17	61.88	0.469	73	28.563	0.38	S 21 E	1.95	2.14	72.4	47.0	25.4	...	...	...	...	...	...
18	67.28	0.522	78	28.506	0.73	S 28 W	3.90	4.58	77.2	55.2	22.0	...	...	...	...	...	...
19	66.63	0.521	80	28.369	0.75	N 19 W	1.58	3.60	76.0	69.4	15.6	...	...	...	...	...	...
20	63.38	0.429	72	28.411	0.17	N 44 W	10.01	10.08	72.0	57.5	14.5	...	...	...	...	...	...
21	60.77	0.389	73	28.627	...	N 40 W	3.65	4.50	69.8	52.0	17.8	0.010	0.5	0.100	0.5	0.100	0.5
22	65.87	0.354	57	28.675	0.23	N 36 W	2.72	4.87	68.5	51.8	16.7	...	...	...	...	...	...
23	66.12	0.311	80	28.720	0.52	N 1 E	4.03	4.79	75.8	54.0	21.8	...	...	...	...	...	...
24	66.12	0.311	80	28.720	0.20	S 31 E	1.65	1.88	73.2	55.5	17.7	...	...	...	...	...	...
25	67.83	0.433	67	28.696	0.78	S 7 E	3.92	4.15	77.0	52.4	24.6	...	...	...	...	...	...
26	70.30	0.577	78	28.537	1.00	S 17 W	3.66	4.12	78.0	63.4	14.6	0.085	2.5	0.085	2.5	0.085	2.5
27	68.68	0.558	80	29.005	0.90	N 83 E	4.30	4.57	79.0	65.0	14.0	...	...	...	...	...	...
28	66.57	0.537	82	28.913	0.83	S 13 E	7.19	9.35	74.7	64.5	10.2	...	...	...	...	...	...
29	67.20	0.558	73	28.900	0.22	S 56 W	5.30	3.82	80.8	58.2	22.6	...	...	...	...	...	...
30	71.24	0.633	82	28.843	0.65	N 15 W	1.85	3.51	81.4	63.8	14.6	...	...	...	...	...	...
31	73.02	0.693	82	28.843	0.65	N 26 W	1.85	3.51	81.4	63.8	14.6	...	...	...	...	...	...
...	65.37	0.407	73	29.551	0.56	N 74 W	1.43	4.66	71.67	53.23	18.44	2.635	31.7	...	2.635	31.7	...

* Inappreciable.

* Inappreciable.

61.29	0.377	69	29.570	29.102	0.45	N 39 W	2.29	6.11	70.26	51.26	19.11	2.326	32.3	2.326	32.3
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GENERAL METEOROLOGICAL ABSTRACT.—AUGUST, 1861.

Days.	DAILY MEANS.					WIND.				EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapor.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Length in inches.	Approximate duration in hours.	
1	71.63	0.641	88	29.552	28.911	0.22	S 55 E	1.41	3.23	78.2	64.4	13.8	...	...	...	...	...	...
2	72.05	.649	82	.474	28.825	0.40	N 72 E	1.70	4.37	81.8	62.4	19.4	...	...	...	...	...	...
3	74.20	.650	78	.603	28.953	0.08	N 84 E	3.52	6.07	80.0	67.4	12.6	...	...	1.5	0.005	1.5	...
4	...	...	...	...	...	...	S 37 W	3.58	5.80	85.2	65.2	19.0	0.003	...	...	...	...	...
5	73.17	.646	78	.484	28.838	0.35	N 84 W	0.87	3.29	82.0	67.0	15.0	...	...	...	...	...	...
6	68.92	.500	78	.562	29.002	0.60	S 80 E	1.25	1.84	76.8	61.8	15.0	0.03	...	...	0.3	0.03	0.3
7	62.65	.516	90	.623	.107	1.00	N 56 E	4.78	4.95	66.2	61.6	4.6	0.05	...	...	0.7	0.05	0.7
8	65.18	.476	77	.612	.135	1.00	N 74 E	4.28	4.47	69.5	61.0	8.5	1.15	...	...	0.5	1.15	0.5
9	66.57	.580	89	.488	28.908	0.83	N 68 E	1.91	3.29	71.8	64.0	7.8	0.15	...	...	0.5	0.15	0.5
10	69.15	.525	72	.484	28.969	0.68	N 29 W	2.84	6.87	83.4	59.2	24.2	...	...	...	...	...	...
11	...	...	...	...	...	...	N 88 E	1.59	2.58	68.8	54.4	14.4	...	...	...	...	...	...
12	57.92	.398	84	.500	29.192	1.00	N 43 E	9.92	10.01	62.4	57.8	4.6	0.00	...	...	12.8	0.00	12.8
13	66.77	.425	80	.689	.264	0.65	N 54 E	4.05	5.09	69.0	55.0	14.0	...	...	...	...	...	...
14	59.40	.366	72	.894	.489	0.50	S 7 W	0.91	1.39	70.6	53.4	17.2	...	...	...	...	...	...
15	61.35	.391	72	.812	.491	0.03	S 25 E	0.68	1.02	72.0	47.0	25.0	...	...	...	...	...	...
16	64.70	.450	74	.727	.277	0.60	S 6 E	2.93	3.21	71.2	53.4	20.8	...	...	...	...	...	...
17	66.18	.507	78	.721	.214	0.58	S 85 W	0.36	1.88	77.0	54.0	23.0	...	...	...	...	...	...
18	...	...	...	...	...	...	S 80 W	0.12	2.58	75.3	53.0	22.3	...	...	...	...	...	...
19	64.13	.469	78	.790	.321	0.62	N 78 E	2.17	2.60	70.6	57.2	13.4	...	...	...	...	...	...
20	64.23	.424	71	.855	.431	0.67	S 89 E	3.19	3.24	70.2	58.4	11.8	...	...	...	...	...	...
21	70.48	.621	83	.680	28.969	0.97	S 49 W	3.86	7.08	80.0	58.5	21.5	0.375	...	...	4.0	0.375	4.0
22	61.70	.451	81	.571	29.120	0.42	N 44 W	9.73	9.92	70.8	60.5	10.3	...	...	...	...	...	...
23	63.15	.371	66	.741	.370	0.12	N 55 W	4.45	5.21	75.4	51.2	24.2	...	...	...	...	...	...
24	65.18	.455	74	.788	.353	0.22	S 41 W	0.88	1.85	75.5	52.4	23.1	...	...	...	...	...	...
25	...	...	...	...	...	...	S 50 E	1.10	1.60	75.5	54.5	21.0	1.15	...	...	1.5	1.15	1.5
26	67.92	.560	82	.699	.138	0.93	S 21 W	1.82	1.98	76.6	62.0	14.6	0.05	...	...	2.2	0.05	2.2
27	68.03	.557	81	.681	.076	0.68	S 29 W	6.32	7.00	75.8	63.8	12.0	0.85	...	...	3.5	0.85	3.5
28	63.07	.545	85	.681	.086	0.55	S 23 W	1.87	2.33	74.8	58.4	16.4	1.65	...	...	0.8	1.65	0.8
29	63.27	.475	81	.607	.134	0.43	N 75 W	1.20	2.38	74.2	59.8	14.4	0.35	...	...	0.2	0.35	0.2
30	60.45	.354	67	.669	.305	0.15	N 49 W	10.71	10.92	70.0	51.0	19.0	...	...	...	...	...	...
31	59.40	.315	63	.784	.469	0.38	N 31 W	1.85	3.54	69.8	49.8	20.0	...	...	...	...	...	...
...	65.48	0.495	78	20.653	29.158	0.54	N 5 E	0.46	4.21	74.80	58.15	16.16	2.953	43.3	2.953	43.3

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—SEPTEMBER, 1861.

Days	DAILY MEANS.				WIND.				Extremes of Temperature.			RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Air.	Relative Humidity.	Barometic Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate hours.	Depth in inches.	Approximate hours.	Depth in inches.	Approximate hours.
1	63.48	29.653	78	29.653	29.158	0.54	N S E	0.46	4.21	74.30	58.15	16.16	2.953	43.3	...	...	2.953	43.3
2	69.29	29.588	81	29.586	28.978	...	S 88 E	4.45	4.70	69.2	52.2	17.0	...	0.2	...	...	...	0.2
3	66.77	29.472	70	29.611	29.139	0.78	S 41 W	6.08	8.38	78.0	61.2	16.8	...	0.2	...	...	...	0.2
4	58.55	29.346	71	29.584	28.458	0.25	N 64 W	8.08	10.21	78.8	61.5	17.3	...	0.70	...	...	...	0.70
5	61.28	29.415	77	29.588	28.173	0.47	N 30 W	4.21	4.47	65.8	52.2	13.6	...	...	...	...	...	...
6	63.87	29.410	69	29.418	28.008	0.57	S 18 E	2.76	3.02	69.2	50.2	19.0	...	...	...	...	...	...
7	55.47	29.327	75	29.788	28.461	0.67	N 20 W	6.56	7.20	75.0	56.0	19.0	...	...	...	...	...	0.1
8	57.63	29.366	77	29.648	28.583	0.80	N 17 E	0.90	1.58	64.4	54.8	9.6	...	...	...	...	...	0.1
9	59.58	29.417	81	29.782	28.365	0.97	N 80 E	3.98	4.17	64.0	53.2	10.8	...	...	...	...	...	0.1
10	61.17	29.407	90	29.560	28.316	0.77	N 9 W	2.47	3.55	63.4	58.0	5.4	...	...	...	...	...	1.0
11	60.73	29.382	74	29.683	29.179	0.47	N 66 W	2.93	3.12	70.4	56.8	13.6	...	...	...	...	...	1.0
12	63.33	29.444	75	29.683	29.229	0.40	S 18 W	2.74	2.77	73.0	49.0	24.0	...	...	...	...	...	0.30
13	65.07	29.561	90	29.608	29.047	0.70	S 41 W	1.23	2.05	68.0	58.5	9.5	...	...	...	...	...	1.15
14	65.07	29.561	90	29.608	29.047	0.70	S 41 W	1.23	2.05	68.0	58.5	9.5	...	...	...	...	...	5.5
15	56.33	29.332	73	29.747	28.415	0.82	N 78 E	1.87	2.39	63.0	50.0	13.0	...	...	...	...	...	...
16	55.33	29.328	74	29.571	28.244	0.62	N 15 E	3.49	4.29	63.0	53.6	9.4	...	...	...	...	...	0.5
17	60.43	29.421	81	29.507	28.146	0.60	S 10 W	4.19	5.85	68.0	49.5	18.5	...	...	...	...	...	...
18	66.93	29.459	69	29.486	28.627	0.82	S 62 W	4.20	7.23	74.8	53.0	21.8	...	...	...	...	...	...
19	57.73	29.421	88	29.407	28.046	1.00	N 44 E	7.32	8.29	61.2	56.0	5.2	...	...	...	...	...	12.0
20	52.03	29.327	84	29.529	28.201	0.83	N 4 W	8.20	8.44	55.2	50.6	4.6	...	...	...	...	...	5.0
21	56.03	29.361	79	29.568	28.207	0.10	N 67 W	4.89	6.74	62.2	39.0	23.2	...	...	...	...	...	0.43
22	56.03	29.361	79	29.568	28.207	0.10	N 67 W	4.89	6.74	62.2	39.0	23.2	...	...	...	...	...	12.0
23	61.15	29.433	81	29.602	28.170	0.38	S 25 E	1.25	1.94	64.8	45.5	19.3	...	...	...	...	...	...
24	61.15	29.433	81	29.602	28.170	0.38	S 25 E	1.25	1.94	64.8	45.5	19.3	...	...	...	...	...	...
25	62.72	29.438	82	29.378	28.305	0.82	S 36 W	3.88	5.13	69.8	47.8	22.0	...	...	...	...	...	3.5
26	52.53	29.348	88	29.251	28.883	1.00	N 44 W	5.07	7.06	59.2	53.0	6.2	...	...	...	...	...	11.0
27	47.58	29.263	80	29.488	29.225	0.60	S 85 W	7.48	7.75	56.5	46.4	10.1	...	...	...	...	...	0.6
28	47.58	29.263	80	29.488	29.225	0.60	S 85 W	7.48	7.75	56.5	46.4	10.1	...	...	...	...	...	0.6
29	48.95	29.251	81	29.085	28.802	0.85	N 46 E	1.18	2.03	55.0	46.4	8.6	...	...	...	...	...	9.5
30	59.07	29.400	79	29.608	29.209	0.60	N 71 W	1.39	4.81	65.38	51.80	13.58	...	...	...	...	...	60.1

* Inappreciable.

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT.—OCTOBER, 1861.

Days	DAILY MEANS.					WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAID AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Force.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	55.25	0.341	84	29.887	29.546	0.85	N 80 E	2.655	58.2	44.0	14.2	...	...	...	...	...	...
2	59.12	.442	88	29.540	29.608	0.65	S 42 W	8.73	9.61	71.0	50.0	21.0	...	...	...	...	...
3	56.07	.363	70	.702	3.98	0.52	N 52 W	5.23	7.16	65.2	54.0	11.2	0.018	1.5	...	...	...
4	51.52	.339	94	.625	3.07	1.00	N 64 E	8.63	9.16	63.0	47.9	5.1	.625	15.0	...	...	...
5	55.25	.419	96	.434	.015	1.00	N 40 E	2.49	3.60	59.4	47.0	12.4	.312	0.5	...	...	...
6	...	...	...	...	...	...	N 23 W	5.94	7.32	55.5	51.1	4.4	.415	7.5	...	...	...
7	47.40	.284	86	.755	.471	0.02	N 21 E	1.66	3.48	53.5	38.8	14.7	...	...	...	...	...
8	50.28	.301	82	.861	.560	0.02	S 86 E	1.57	4.37	58.0	43.5	14.5	...	...	...	...	...
9	52.62	.321	75	.927	.636	0.17	N 69 E	4.32	5.06	50.0	44.5	5.5	...	...	...	...	...
10	52.62	.327	84	.778	.451	0.37	E	2.15	3.76	60.6	44.2	16.4	...	...	...	...	...
11	52.75	.360	90	.493	.093	0.33	S 72 W	2.02	2.90	63.8	47.4	16.4	.658	2.5	...	...	...
12	45.25	.255	77	.471	28.337	0.92	S 39 W	8.31	9.50	50.8	38.5	12.3	.005	1.0	...	...	...
13	...	...	...	...	...	...	N 61 W	10.86	11.35	54.0	35.5	18.5	.005	0.3	...	...	...
14	50.12	.273	75	.555	...	0.00	S 71 W	5.74	6.73	67.4	35.5	31.9	...	...	...	...	...
15	46.23	.229	74	.757	.528	0.57	N 69 E	2.54	4.02	55.2	35.0	20.2	...	...	...	...	...
16	52.73	.362	90	.638	.276	1.00	S 84 E	2.23	2.49	57.3	45.5	11.8	...	...	...	...	...
17	56.83	.381	83	.571	1.00	0.88	N 50 E	2.97	4.07	62.0	50.0	12.0	.680	2.1	...	...	...
18	56.83	.407	85	.460	.653	1.00	N 63 E	3.49	4.29	62.0	53.0	7.0	.630	4.6	...	...	...
19	51.63	.320	82	.420	1.00	0.93	N 79 W	6.04	8.02	57.2	52.0	5.2	.072	5.0	...	...	...
20	...	...	...	...	...	...	N 55 W	6.39	7.07	52.4	40.5	11.9	...	...	...	...	...
21	44.40	.222	75	.847	.625	0.12	E	8.97	9.43	52.0	33.5	18.5	...	...	...	...	...
22	51.03	.330	87	.476	1.46	0.73	S 8 W	2.80	6.47	57.2	38.8	18.4	.455	5.9	...	...	...
23	49.75	.198	77	.417	.219	0.58	N 80 W	9.63	10.20	47.4	43.8	3.6	.043	1.0	...	...	...
24	34.27	1.55	78	.899	.744	0.32	N 55 W	5.90	6.58	42.0	30.5	11.5	...	...	...	...	...
25	45.77	.241	78	.926	.685	0.58	S 17 W	6.04	6.32	51.8	29.0	22.8	...	...	...	...	...
26	44.22	.247	83	.836	.589	0.58	N 72 W	4.76	6.50	53.2	43.8	9.4	...	...	...	...	...
27	...	...	...	...	...	...	N 34 E	1.56	4.88	46.2	31.4	14.8	...	...	...	...	...
28	38.52	.176	74	.790	.614	0.02	S 75 E	2.20	3.71	47.0	31.0	16.0	...	...	...	...	...
29	42.52	.227	81	.289	.062	0.20	S 83 E	3.64	5.17	48.8	32.0	16.8	.105	4.0	...	...	...
30	40.83	.229	89	.001	28.862	0.63	S 44 W	4.30	4.67	45.5	41.0	4.5	.070	1.7	...	...	...
31	43.48	.236	84	.608	29.372	0.87	N 55 W	3.52	4.08	49.0	35.4	13.6	...	...	...	...	...
	48.74	0.292	82	29.619	29.327	0.51	N 61 W	1.06	5.96	53.34	41.62	11.73	1.993	53.6	*	1.0	1.993	54.6

* Immeasurable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—NOVEMBER, 1861.

* Inappreciable.

Days.	DAILY MEANS.					WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapor.	Humidity.	Barometre Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	42.45	0.222	81	29.877	29.655		N 70 E	10.77	10.94	44.2	39.0	5.2	0.415	5.5	0.415	5.5	0.415	5.5
2	40.33	0.235	94	33.25	.000	1.00	N 51 E	18.30	20.73	44.0	38.5	5.5	3.132	19.0	3.132	19.0	3.132	19.0
3	...	...	...	...	...	...	S 79 W	7.83	8.25	44.5	37.0	7.5	.195	6.0	.195	6.0	.195	6.0
4	40.065	.206	83	302	.096	0.95	S 75 W	6.50	6.85	46.5	36.0	10.5	.005	0.2	.005	0.2	.005	0.4
5	46.07	.256	82	228	28.373	0.78	S 43 W	2.46	3.83	52.4	38.6	13.8	*	0.5	*	0.5	*	0.5
6	43.80	.219	77	305	20.086	0.53	N 36 W	6.23	6.85	51.6	41.0	10.6	*	0.5	*	0.5	*	0.5
7	38.25	.164	73	543	.879	0.38	N 39 W	2.89	3.13	46.0	33.6	12.4	*	0.4	*	0.4	*	0.4
8	40.65	.269	82	431	.222	1.00	N 57 W	2.66	2.42	45.2	31.4	13.8	*	0.4	*	0.4	*	0.4
9	35.92	.152	73	570	.418	0.32	N 22 W	2.26	2.42	44.0	31.0	13.0	*	0.4	*	0.4	*	0.4
10	42.82	.210	75	540	.331	0.47	N 80 W	15.20	15.40	49.6	43.0	6.6	.020	2.0	.020	2.0	.020	2.0
11	37.83	.179	79	911	.732	0.72	S 45 E	1.37	3.59	46.2	29.5	16.7	.025	0.5	.025	0.5	.025	0.5
12	41.73	.201	75	648	.447	0.88	N 37 W	1.11	3.44	45.0	34.0	11.0	...	...	...	...	...	...
13	37.38	.158	69	610	.452	0.95	N 24 W	5.34	6.43	45.0	36.0	9.0	...	...	...	...	...	...
14	31.70	.118	66	473	.355	0.82	N 36 W	11.14	11.82	35.8	29.2	6.6	...	...	...	...	...	...
15	32.37	.143	78	587	.444	0.82	N 37 W	18.92	19.10	35.0	27.6	7.4	...	...	...	...	...	...
16	...	...	...	...	...	...	N 48 W	9.73	9.98	40.2	28.0	12.2	...	...	...	...	...	...
17	33.25	.144	75	761	.617	0.02	N 17 W	9.11	9.38	41.0	23.0	18.0	...	...	...	...	...	...
18	33.47	.138	71	800	.752	0.12	S 79 E	4.12	4.89	39.4	25.6	13.8	...	...	...	...	...	...
19	38.70	.182	71	619	.437	0.38	S 82 E	5.18	5.30	42.2	30.0	12.2	.127	4.8	.127	4.8	.127	4.8
20	38.59	.219	93	805	.587	1.00	S 77 E	0.45	0.60	43.8	37.0	6.8	*	1.5	*	1.5	*	1.5
21	39.87	.204	83	453	.249	1.00	S 72 E	9.85	14.42	44.0	34.4	9.6	.230	3.2	.230	3.2	.230	3.2
22	35.20	.167	81	158	28.991	1.00	S 39 W	6.57	7.35	37.4	33.5	3.9	...	...	...	...	...	...
23	...	...	...	...	...	...	S 58 W	1.47	1.54	34.0	30.0	4.0	...	...	...	...	...	...
24	30.07	.148	86	344	29.196	0.55	N 16 W	0.47	0.48	37.0	23.3	13.7	...	...	...	...	...	...
25	32.18	.143	79	685	.541	0.20	S 47 W	1.84	3.31	40.8	25.0	15.8	...	...	...	...	...	...
26	33.02	.166	81	475	.309	0.98	S 32 W	7.32	11.53	38.2	28.6	9.6	.055	3.0	.055	3.0	.055	3.0
27	30.43	.139	81	602	.464	0.95	S 30 E	4.41	5.32	37.0	27.8	9.2	*	0.5	*	0.5	*	0.5
28	35.73	.177	84	334	.157	0.93	S 78 W	6.84	7.16	39.0	29.2	9.8	*	0.5	*	0.5	*	0.5
29	31.33	.137	77	486	.350	0.87	S 81 W	8.34	8.42	34.0	30.5	3.5	...	...	...	...	...	...
30	37.14	0.178	79	29.537	29.359	0.74	N 46 W	1.94	7.44	42.39	31.99	10.40	4.294	48.1	3.2	17.4	4.614	65.5

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT.—DECEMBER, 1861.

Days	DAILY MEANS.				WIND.				EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	...	...	...	...	...	...	West	1.87	29.5	25.8	4.7	...	...	3.0	10.0	0.300	10.0
2	19.98	0.090	83	29.588	29.498	0.25	N 75 W	5.47	29.5	14.2	15.3	...	...	...	0.5	...	0.5
3	14.25	.068	83	29.588	29.498	0.05	N 23 W	3.71	28.4	10.7	10.3	...	...	...	0.2	...	0.2
4	28.03	1.33	85	29.588	29.498	0.53	S 42 W	9.98	10.23	34.4	8.0	26.4	...	...	...	...	...
5	31.63	1.56	77	29.588	29.498	0.47	N 72 E	2.31	2.37	40.8	26.3	14.5	...	...	...	...	...
6	41.92	.237	80	29.588	29.498	0.47	S 23 E	0.90	1.76	46.4	34.4	12.0	...	...	...	...	...
7	47.92	.239	89	29.588	29.498	0.98	S 33 W	6.24	6.37	52.0	39.5	12.5	21.0	...	...	...	...
8	...	...	...	...	...	...	S 54 W	0.42	0.77	55.1	45.0	10.1	...	...	...	...	...
9	44.60	.279	94	29.588	29.498	0.98	N 69 E	2.56	2.67	46.5	42.0	4.5	...	...	...	...	...
10	48.45	.329	95	29.588	29.498	1.00	N 73 W	10.30	14.63	55.2	42.4	12.8	10.0	...	...	...	...
11	29.23	.092	64	29.588	29.498	0.08	N 49 W	9.70	10.33	32.2	27.3	4.9	...	...	...	...	...
12	30.68	1.33	78	29.588	29.498	0.30	S 54 W	6.41	6.50	35.6	18.8	16.8	...	...	...	...	...
13	35.15	1.47	71	29.588	29.498	0.50	S 55 W	4.29	4.35	41.6	30.0	11.6	...	...	...	...	...
14	37.73	1.56	70	29.588	29.498	0.60	N 76 W	5.79	7.04	43.8	32.6	11.2	...	...	...	...	...
15	...	...	...	...	...	...	S 60 W	5.46	6.40	38.0	28.2	9.8	...	...	...	...	...
16	42.45	1.95	72	29.588	29.498	0.78	N 80 W	3.18	12.46	41.0	32.0	19.0	...	...	...	...	...
17	33.78	1.60	75	29.588	29.498	0.83	S 12 E	2.80	7.14	41.0	29.4	11.6	...	...	...	...	...
18	35.67	1.41	69	29.588	29.498	0.17	N 34 W	3.65	6.85	43.2	31.8	11.4	...	...	...	...	...
19	41.78	2.17	81	29.588	29.498	1.00	N 84 W	8.56	10.83	48.0	39.2	17.8	...	...	...	...	...
20	21.95	.092	73	29.588	29.498	0.82	N 44 W	13.27	15.04	29.8	29.2	9.6	...	...	...	...	...
21	16.48	.068	74	29.588	29.498	0.33	S 86 W	5.33	6.26	26.0	12.0	11.0	...	...	...	...	...
22	...	...	...	...	...	...	N 30 E	7.58	8.52	30.5	13.2	17.3	...	...	...	...	...
23	23.73	1.07	83	29.588	29.498	0.30	N 23 W	15.62	16.71	26.2	24.0	2.2	...	...	...	...	...
24	11.68	.068	91	29.588	29.498	0.15	N 22 W	7.01	7.01	20.0	8.0	12.0	...	...	...	...	...
25	...	...	...	...	...	...	N 78 E	8.40	9.49	28.4	5.5	22.9	...	...	...	...	...
26	33.63	1.73	91	29.588	29.498	0.98	S 15 W	5.41	14.29	41.5	18.2	23.3	25.0	...	...	...	...
27	24.02	.090	70	29.588	29.498	0.47	N 64 W	18.33	20.27	30.0	24.3	5.7	...	...	...	...	...
28	18.22	.080	79	29.588	29.498	0.70	N 88 E	4.75	6.53	27.3	9.5	17.8	...	...	...	...	...
29	...	...	...	...	...	...	N 65 W	3.72	6.15	32.2	18.7	13.5	...	...	...	...	...
30	27.22	1.05	71	29.588	29.498	0.38	N 76 W	3.38	5.24	33.2	27.5	5.7	...	...	...	...	...
31	36.60	1.75	80	29.588	29.498	0.83	S 42 W	8.44	8.56	42.2	21.5	20.7	...	...	...	...	...
	31.13	1.51	79	29.746	29.595	0.02	N 72 W	3.50	7.96	37.03	24.23	12.80	0.360	18.6	6.8	30.0	1.240	48.0

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT—JANUARY, 1862.

Days.	DAILY MEANS.					WIND.			Extremes of Temperature.			RAIN.		SNOW.		Ice and Melting Snow.			
	Temperature of the Air.	Pressure of Vapor.	Relative Humidity.	Barometric Pressure.	Dry Air.	Clouded Sky.	Direction.	Residual Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	Depth in Inches.	Approximate duration in hours.	
1	30.68	0.135	70	29.248	29.113	0.70	N 70 W	24.91	44.5	32.0	12.5	*	0.2	0.1	1.0	.010	1.2		
2	12.45	.154	69	29.919	.866	0.12	N 31 W	14.43	19.0	13.9	5.1	...	...	...	...	...	...	...
3	2.42	.036	73	29.698	.872	0.68	N 3 E	8.87	8.2	-2.6	10.8	...	...	...	...	...	...	...
4	5.25	.037	63	...	.751	0.18	N 5 W	4.09	11.0	-1.8	12.8	...	...	...	...	...	...	...
5	...	...	...	...	...	...	N 56 E	7.18	19.8	0.5	19.3	...	...	1.0	0.4	1.00	4.0	...
6	17.32	.081	53	...	.330	0.80	N 9 E	3.96	21.8	11.0	10.8	...	...	0.3	3.0	.030	3.0	...
7	22.69	.091	78	29.941	.847	0.43	N 75 W	3.82	30.2	13.2	17.0	...	...	...	...	...	...	...
8	30.20	.144	84	29.745	.690	1.00	S 7 W	6.43	38.0	17.1	20.9	...	...	0.5	3.5	.050	3.5	...
9	35.32	.175	85	29.626	.451	1.00	S 36 W	4.18	50.7	29.0	8.0	.005	0.5	...	...	.005	0.5	...
10	34.40	.161	76	29.409	.248	0.75	N 68 W	10.72	43.2	34.5	8.7	.060	2.5	...	...	.060	2.5	...
11	15.85	.078	87	29.583	.565	0.98	S 85 E	7.53	27.5	13.0	14.5	...	...	3.0	10.0	.300	10.0	...
12	...	...	...	...	...	...	N 75 W	11.85	12.40	13.2	19.2	.050	2.0	0.2	1.5	.070	3.5	...
13	4.35	.042	78	30.068	.30	0.53	N 20 W	7.21	8.40	7.1	1.5	5.6	...	...	4.0	4.00	4.0	...
14	12.00	.061	76	29.151	.691	0.06	N 83 E	6.11	9.28	-2.0	25.8	...	...	2.5	3.8	.250	3.8	...
15	27.60	.136	90	29.329	.878	0.98	S 64 W	10.37	14.94	32.7	12.2	20.5	...	...	...	...	...	...
16	14.12	.159	71	29.939	.879	0.20	S 87 W	10.38	10.65	20.0	13.7	4.3	...	...	...	...	...	...
17	18.78	.091	87	29.974	.883	1.00	N 13 E	4.71	5.20	2.0	22.0	...	...	1.5	8.7	.150	8.7	...
18	24.43	.119	91	29.680	.561	1.00	N 50 E	6.76	6.82	26.2	20.5	5.7	3.0	8.0	3.00	8.0	...
19	N 42 E	5.33	6.56	26.2	19.5	6.7	1.5	5.0	.150	5.0	...
20	22.37	.095	80	29.563	.470	0.68	N 8 E	7.97	8.04	27.4	19.7	7.7	0.5	4.0	.050	4.0	...
21	23.83	.110	85	29.737	.627	1.00	N 55 E	7.50	8.23	28.6	15.0	13.6	0.5	3.0	.050	3.0	...
22	28.87	.139	87	29.687	.548	1.00	N 79 W	4.01	2.90	32.5	23.7	8.9	0.2	3.0	.020	3.0	...
23	28.27	.133	86	29.770	.637	0.73	N 63 E	0.76	2.02	33.0	23.0	7.0	0.1	2.0	.010	2.0	...
24	29.35	.136	83	29.719	.583	0.97	N 84 E	10.00	10.34	31.5	26.3	5.2	1.5	3.0	.150	3.0	...
25	27.80	.122	81	29.331	.208	0.98	S 86 W	4.67	10.07	32.0	22.0	10.0	5.0	13.7	.500	13.7	...
26	N 84 W	12.98	13.01	25.8	2.8
27	16.37	.081	85	29.135	.30	0.38	N 66 E	2.46	3.46	27.2	5.0	22.2	2.0	5.5	.200	5.5	...
28	24.00	.110	91	29.748	.629	1.00	S 84 E	14.09	14.17	29.2	15.4	13.8
29	23.23	.151	84	29.563	.349	0.90	N 57 W	3.31	3.98	36.0	19.0	17.0
30	23.38	.093	76	29.737	.691	0.52	N 5 W	5.56	7.05	29.8	20.3	3.5
31	21.30	.097	82	29.907	.811	0.53	S 76 E	7.28	7.78	30.2	9.0	21.2
...	21.71	0.103	81	29.727	.624	0.73	N 26 W	2.69	8.83	27.38	15.08	12.55	0.115	7.2	27.4	88.9	2.855	96.1	...

* Inappreciable.

* Inappreciable.

31.13	0.151	79	29.746	29.595	0.62	N 72 W	3.50	7.96	37.03	24.29	12.80	0.560	18.6	6.8	30.0	1.240	48.6
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TORONTO METEOROLOGICAL RESULTS.

Days	DAILY MEANS.				WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.			
	Temperature of the Air.	Pressure of Vapor.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Length in inches.	Approximate duration in hours.	Length in inches.	Approximate duration in hours.	Length in inches.	Approximate duration in hours.
1	26.33	0.109	76	29.704	29.595	0.58	N 85 W	4.83	5.01	33.5	24.2	9.3	...	...	...	...	0.6	...
2	...	...	...	...	...	...	N 72 W	4.41	5.62	28.4	14.2	14.2	...	...	...	...	...	...
3	19.08	.060	86	.754	.664	1.00	N 75 E	5.71	7.36	24.2	8.0	16.2	...	...	1.2	8.0	120	8.0
4	20.53	.066	86	.861	.765	0.88	N 63 W	3.95	3.47	25.4	16.8	8.6	...	...	1.0	3.5	100	3.5
5	21.20	.116	84	.854	.738	0.72	S 72 E	3.35	4.18	32.8	10.2	22.6	...	...	...	...	...	...
6	34.53	.170	85	.309	.149	1.00	N 76 W	9.18	13.39	37.8	20.0	8.8	...	...	...	...	...	...
7	24.47	.109	81	.726	.617	0.38	N 49 W	6.61	8.08	30.8	27.4	3.4	...	...	0.5	1.3	175	3.1
8	14.90	.077	90	.708	.631	1.00	N 56 E	1.87	2.91	21.0	12.0	9.0	...	...	...	...	...	...
9	...	...	...	...	...	...	N 80 W	8.98	9.21	21.5	13.7	7.8	...	...	...	...	...	...
10	19.62	.086	80	.577	.459	0.83	S 18 W	3.90	4.32	25.6	10.5	15.1	...	...	...	...	...	...
11	28.63	.142	89	.115	.8.970	1.00	S 16 E	7.39	10.23	32.4	20.3	12.1	...	...	...	...	...	...
12	29.42	.153	82	.448	.384	0.95	S 86 W	5.27	6.92	32.5	27.0	5.5	...	...	...	...	...	...
13	26.70	.131	90	.516	.384	1.00	N 38 E	2.89	6.23	30.0	21.7	8.3	...	...	...	...	...	...
14	12.03	.061	77	.669	.608	0.52	N 57 W	8.96	9.51	19.0	15.0	4.0	...	...	...	...	...	...
15	9.58	.051	75	.650	.569	0.48	S 67 W	10.93	11.49	17.2	-5.2	22.4	...	...	...	...	...	...
16	...	...	...	...	...	...	N 21 W	1.41	3.04	17.8	2.0	15.8	...	...	...	...	...	...
17	25.70	.132	92	.729	.597	0.87	N 78 E	6.45	8.61	35.2	7.6	27.6	...	...	...	...	...	...
18	32.83	.149	79	.726	.577	1.00	N 88 W	10.60	11.25	37.0	26.0	11.0	...	...	...	...	...	...
19	26.52	.127	98	.610	.483	1.00	N 38 E	11.32	13.06	31.2	22.6	8.6	...	...	...	...	...	...
20	21.07	.093	83	.746	.633	0.63	N 57 W	10.66	11.29	25.8	20.2	5.6	...	...	...	...	...	...
21	21.42	.064	81	.738	.645	0.95	S 45 W	1.23	2.38	30.0	9.2	20.8	...	...	...	...	...	...
22	29.72	.144	87	.409	.265	1.00	S 38 E	0.47	1.52	34.0	18.0	16.0	...	...	...	...	...	...
23	...	...	...	...	...	...	N 59 E	3.48	4.19	36.2	20.3	9.9	...	...	...	...	...	...
24	18.85	.067	84	.482	.385	0.37	N 42 W	18.29	18.72	32.0	13.6	18.4	...	...	...	...	...	...
25	11.23	.067	88	.982	.915	0.28	N 83 E	2.84	4.36	25.5	-4.5	30.0	...	...	...	...	...	...
26	28.13	.142	92	.400	.258	1.00	N 55 E	4.04	8.19	31.0	12.5	18.5	...	...	...	...	...	...
27	20.50	.085	77	.469	.354	0.78	N 68 W	10.76	19.83	26.0	22.0	4.0	...	...	...	...	...	...
28	14.18	.065	81	.528	.462	0.52	N 48 W	23.69	24.13	17.2	11.1	6.1	...	...	...	...	...	...
29	22.50	0.107	84	29.608	20.501	0.78	N 55 W	3.93	8.52	28.25	15.41	12.84	0.180	14.0	23.1	73.4	2.490	87.4

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—MARCH, 1862.

Days.	DAILY MEANS.					WIND.			EXTREMES of TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.	Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate in hours.	Depth in Inches.	Approximate in hours.	Depth in Inches.	Approximate in hours.
1	17.75	0.075	76	29.638	29.564	0.05	N 42 W	10.78	11.17	28.0	11.6	16.4	...	...	0.5	2.0	.050	2.0
2	...	...	...	...	28.896	1.00	N 58 E	9.92	10.55	28.0	8.0	20.6	...	...	3.0	5.0	1.000	17.5
3	30.70	.163	94	.059	29.030	0.98	S 79 E	7.90	16.73	34.9	19.0	15.9	...	...	*	0.2	*	0.2
4	23.78	.107	83	.137	29.030	0.98	S 67 W	8.36	10.81	26.2	21.5	4.7	...	...	...	...	...	...
5	23.07	.103	82	.201	29.030	0.72	S 87 W	7.83	8.10	29.5	20.3	9.2	...	...	...	...	...	...
6	24.68	.111	83	.347	29.030	0.90	S 83 W	7.72	8.40	39.5	15.5	14.0	...	...	...	...	...	...
7	32.83	.147	78	.407	29.030	0.80	N 65 W	5.22	5.61	39.5	23.8	15.7	...	...	...	...	...	...
8	34.52	.153	77	.696	29.030	1.00	N 76 W	2.50	4.19	37.2	32.0	5.2	...	...	...	...	...	...
9	35.35	.150	88	.353	29.030	0.67	S 72 E	7.36	7.91	39.0	32.0	7.0	...	...	...	...	...	...
10	30.38	.137	81	.628	29.030	0.23	S 81 W	9.77	11.50	39.0	33.0	6.0	...	...	...	...	...	...
11	27.02	.107	74	.702	29.030	0.57	S 60 W	6.93	7.55	37.8	24.8	13.0	...	...	...	...	...	...
12	25.25	.111	81	.761	29.030	1.00	N 45 W	8.35	12.46	35.0	22.8	12.2	...	...	...	...	...	...
13	25.25	.111	81	.761	29.030	1.00	N 75 E	12.28	12.35	28.0	20.3	7.7	...	...	...	...	...	...
14	29.25	.139	86	.628	29.030	1.00	N 61 E	8.04	8.59	32.0	25.0	7.0	...	...	...	...	...	...
15	31.63	.171	96	.254	29.030	1.00	N 48 E	10.33	10.44	33.2	29.8	3.4	...	...	...	...	...	...
16	...	...	...	...	28.916	...	N 28 E	3.77	4.60	32.0	27.0	5.0	...	...	...	...	...	...
17	29.58	.144	87	.475	28.916	0.72	N 23 W	4.68	5.23	35.0	20.7	14.3	...	...	...	...	...	...
18	28.75	.121	78	.743	28.916	0.06	N 49 W	1.56	3.97	37.0	23.0	14.0	...	...	...	...	...	...
19	28.22	.120	78	.743	28.916	0.43	N 56 E	3.00	4.51	37.6	14.8	22.8	...	...	...	...	...	...
20	30.97	.131	75	.542	28.916	0.75	N 80 E	16.89	17.11	34.5	25.8	8.7	...	...	...	...	...	...
21	31.57	.170	96	.174	28.916	1.00	N 63 E	9.14	11.57	33.1	29.2	3.9	...	...	...	...	...	...
22	31.90	.165	91	.081	28.916	0.75	N 85 W	3.67	4.59	37.8	29.0	8.8	...	...	...	...	...	...
23	...	...	...	...	29.274	...	N 34 W	12.26	12.50	40.5	26.6	13.9	...	...	...	...	...	...
24	26.60	.117	82	.391	29.274	0.93	N 39 W	13.64	13.80	31.5	25.6	5.9	...	...	...	...	...	...
25	23.80	.101	78	.557	29.274	0.02	N 50 W	7.01	7.25	34.0	15.4	18.6	...	...	...	...	...	...
26	26.30	.111	77	.654	29.274	0.10	S 82 W	3.21	4.01	35.6	12.0	23.6	...	...	...	...	...	...
27	32.32	.120	67	.671	29.274	0.47	N 68 W	8.18	8.87	43.2	20.7	22.5	...	...	...	...	...	...
28	27.27	.105	72	.731	29.274	0.18	N 2 E	7.90	8.94	35.2	23.8	11.4	...	...	...	...	...	...
29	27.98	.119	77	.780	29.274	0.42	N 89 E	16.74	11.00	32.4	20.3	12.1	...	...	...	...	...	...
30	...	...	...	...	...	...	S 72 E	7.53	11.32	37.5	29.8	7.7	...	...	...	...	...	...
31	36.43	.182	85	.587	...	0.82	N 78 W	14.31	15.12	40.0	33.5	6.5
32	28.79	0.132	82	29.504	29.572	0.63	N 12 W	2.50	9.38	34.64	23.12	11.52
33

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22.50 0.107 84 29.608 29.501 0.478 N 53 W 3.93 8.52 28.25 15.41 12.84 0.180 14.0 23.1 63.4 2.490 51.4

GENERAL METEOROLOGICAL ABSTRACT—APRIL, 1862.

Days	DAILY MEANS.				WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAZ AND MELTED SNOW.			
	Temperature of the Air.	Vapour.	Relativity.	Barometre Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	32.29	0.164	88	29.880	29.725	0.43	N 50 E	2.54	5.77	36.6	30.4	9.2	...	...	...	...	...
2	33.27	.192	80	.431	.241	0.87	S 62 E	3.71	15.58	45.7	29.8	15.9	.010	1.0	.010	1.0	.010	1.0
3	40.25	.173	72	.745	.566	0.77	N 77 W	3.07	10.24	45.4	31.2	11.2	...	...	...	...	...	...
4	32.30	.149	81	.784	.585	0.88	N 86 E	13.47	19.90	36.0	31.5	4.4	...	...	0.1	1.5	.010	1.5
5	36.40	.168	79	.378	.210	0.85	S 87 W	6.45	12.51	41.8	30.4	11.4	.355	5.0	.365	5.8	.365	5.8
6	...	...	...	...	...	...	N 69 W	11.85	12.03	35.0	28.8	6.2	...	...	...	...	...	...
7	26.17	.117	82	.874	.757	0.72	N 72 E	8.44	9.41	31.2	14.5	16.7	...	...	...	...	...	...
8	29.90	.132	79	.647	.445	1.00	N 80 E	19.97	19.99	32.2	26.2	6.0	...	...	...	...	...	...
9	33.22	.131	69	.576	.445	0.95	N 72 E	11.17	11.83	36.8	29.0	7.8	...	...	...	...	...	...
10	33.67	.116	70	.301	.735	0.00	N 32 E	2.71	5.00	43.0	28.1	14.9	...	...	...	...	...	...
11	37.08	.145	66	.30.692	.948	0.10	N 20 E	1.76	4.79	46.4	30.0	16.4	...	...	...	...	...	...
12	39.73	.128	53	.011	.889	0.35	N 85 E	10.42	10.43	43.2	30.0	13.2	...	...	...	...	...	...
13	...	...	...	...	...	...	N 77 E	6.74	6.99	45.8	30.0	9.8	.020	1.0	.020	1.0	.020	1.0
14	46.37	.247	79	.792	.545	0.93	N 88 E	3.84	4.18	57.0	39.8	17.2	...	...	...	...	...	...
15	49.25	.288	82	.835	.551	0.63	N 81 E	6.11	6.17	55.4	40.5	14.9	...	...	...	...	...	...
16	54.32	.338	79	.721	.383	0.85	S 67 E	2.58	3.34	66.8	44.5	22.3	...	...	...	...	...	...
17	56.85	.334	82	.747	.363	0.98	N 89 W	4.27	6.93	68.0	51.4	16.6	.130	5.5	.130	5.5	.130	5.5
18	...	...	...	...	...	...	N 74 W	5.25	8.98	57.0	45.2	11.8	.115	5.0	.115	5.0	.115	5.0
19	41.30	.177	68	.772	.565	0.82	N 49 W	4.94	7.82	47.8	37.0	10.8	...	...	...	...	...	...
20	...	...	...	...	...	...	N 87 E	5.44	7.48	44.8	35.0	9.8	...	...	...	...	...	...
21	37.40	.199	89	.431	.232	1.00	N 82 E	18.93	18.95	38.8	34.6	4.2	1.555	21.2	1.555	21.2	1.555	21.2
22	39.83	.217	87	.167	.28.959	0.97	N 64 W	11.08	14.04	48.0	36.6	11.4	.020	2.0	.020	2.0	.020	2.0
23	31.12	.147	84	.595	.29.448	0.53	N 68 W	17.30	18.11	33.8	28.0	5.8	...	...	...	...	...	...
24	35.92	.126	50	.801	.676	0.67	S 55 W	3.97	9.84	46.0	29.2	16.8	...	...	...	...	...	...
25	35.00	.111	58	.888	.777	0.50	N 85 E	4.42	5.87	43.0	27.8	15.4	...	...	...	...	...	...
26	39.87	.138	56	.377	.839	0.40	S 76 E	3.99	5.40	48.0	27.9	20.1	...	...	...	...	...	...
27	...	...	...	...	...	...	N 76 E	7.17	8.08	49.0	35.0	14.0	...	...	...	...	...	...
28	48.10	.235	50	.614	.379	0.92	S 81 W	5.35	10.76	50.4	41.5	14.9	.025	1.0	.025	1.0	.025	1.0
29	43.97	.157	57	.763	.600	0.38	N 38 W	9.30	9.54	52.2	39.4	12.8	...	...	...	...	...	...
30	45.45	.188	61	.702	.515	0.28	N 37 E	6.30	7.77	54.0	39.5	23.5	...	...	...	...	...	...
31	30.56	0.184	73	29.726	29.542	0.65	N 50 E	2.48	9.77	46.3	33.43	12.91	2.235	43.7	2.255	47.5	2.255	47.5

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—MAY, 1862.

Days	DAILY MEANS.				Clouded Sky.	WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapor.	Relative Humidity.	Barometric Pressure.		Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in Inches.	Approximate in Hours.	Depth in Inches.	Approximate in Hours.	Depth in Inches.	Approximate in Hours.
1	42.27	0.235	87	29.514	1.00	N 82 E	14.34	49.0	41.6	7.4	0.255	8.5	0.255	8.5	0.255	8.5	
2	44.37	.257	88	4.33	0.73	S 20 W	4.34	6.77	53.5	30.8	13.7	135	3.0	135	3.0	135	3.0
3	46.43	.239	76	.523	.284	S 62 W	6.68	8.03	53.2	39.2	14.0	.007	0.5	.007	0.5	.007	0.5
4	46.45	.230	73	.449	...	N 45 W	1.36	5.04	55.0	36.5	18.5	...	...	...	...	...	...
5	46.45	.218	56	4.10	...	N 30 W	11.10	12.27	54.6	40.0	14.6	...	...	...	...	...	...
6	52.55	.145	48	.577	0.77	N 53 W	16.38	17.14	63.8	43.0	20.8	...	...	...	...	...	...
7	43.90	...	...	...	0.15	N 30 W	10.34	10.43	52.6	40.2	12.4	...	...	...	...	...	...
8	51.97	.237	61	.722	0.20	N 80 W	6.22	8.19	68.0	32.4	35.6	...	...	...	...	...	...
9	65.48	.286	45	.390	0.17	N 57 W	16.23	16.33	78.5	41.5	37.0	...	...	...	...	...	...
10	60.33	.271	52	.627	0.00	N 26 W	15.09	15.81	70.5	54.6	15.9	...	...	...	...	...	...
11	58.03	.304	63	.695	...	S 47 W	1.64	3.24	36.6	40.2	10.4	...	...	...	...	...	...
12	50.20	.324	88	.592	0.33	S 38 W	4.85	5.65	67.5	39.4	28.1	...	...	...	...	...	...
13	52.43	.234	60	.734	0.73	N 85 E	3.14	3.98	60.0	46.0	14.0	0.160	1.0	...	...	...	...
14	52.43	.234	60	.734	0.00	N 60 E	5.37	6.85	62.2	42.6	19.6	...	...	...	...	...	...
15	56.20	.253	57	.778	0.17	N 73 E	1.33	2.75	65.5	44.4	21.1	...	...	...	...	...	...
16	39.45	.375	72	.731	0.00	S 42 E	0.78	1.17	74.0	43.6	30.4	...	...	...	...	...	...
17	60.75	.331	73	.375	0.08	S 62 E	1.73	2.03	72.4	40.0	23.4	...	...	...	...	...	...
18	...	...	...	...	...	S 80 W	6.35	8.55	45.6	40.8	4.8	...	...	...	...	...	...
19	41.87	.182	60	.507	...	N 68 W	8.35	8.55	51.0	32.6	18.4	...	...	...	...	...	...
20	44.08	.204	70	.664	0.50	S 73 E	4.62	12.07	56.0	42.0	14.0	0.855	9.3	...	...	...	...
21	49.25	.287	81	.452	0.78	S 58 E	4.62	12.07	64.1	47.8	16.6	...	...	...	...	...	...
22	54.37	.291	68	.597	0.30	S 69 W	10.97	12.09	64.1	47.8	16.6	...	...	...	...	...	...
23	50.45	.181	52	.780	0.10	N 59 W	13.04	13.83	33.8	47.1	12.7	...	...	...	...	...	...
24	46.07	.183	58	.853	0.12	S 7 E	1.43	4.31	53.8	33.8	19.7	...	...	...	...	...	...
25	...	...	...	...	...	S 15 W	4.63	4.96	58.5	37.0	21.5	...	...	...	...	...	...
26	52.38	.263	68	.521	...	S 80 E	3.20	3.42	50.2	42.5	16.7	0.015	0.8	...	...	...	...
27	58.28	.197	67	.363	0.76	N 38 W	6.63	9.58	71.4	40.6	21.8	...	...	...	...	...	...
28	51.23	.193	63	.603	0.03	N 30 W	6.05	6.78	63.0	41.2	21.8	...	...	...	...	...	...
29	55.15	.227	52	.587	0.30	S 58 W	1.79	3.22	64.1	36.0	28.1	...	...	...	...	...	...
30	55.08	.238	51	.508	0.67	S 58 W	1.79	2.48	60.0	44.8	13.2	...	...	...	...	...	...
31	57.40	.242	52	.521	0.65	N 56 E	3.01	3.51	66.2	41.4	24.8	...	...	...	...	...	...
	52.17	0.253	65	29.390	0.45	N 52 W	2.80	7.87	61.43	42.01	19.46	1.427	23.2	1.427	23.2	1.427	23.2

* Inappreciable.

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT.—JUNE, 1862.

Days	DAILY MEANS.				WIND.				EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapor.	Relative Humidity.	Barometric Pressure.	Dry Air.	Clouded Sky.	Direction.	Resultant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	...	...	...	...	...	...	N 82 E	3.04	3.10	63.0	49.6	13.4	...	...	...	...	...
2	56.28	0.352	77	29.433	...	0.87	N	2.27	3.29	63.0	46.0	17.0	...	...	...	...	...
3	56.33	.343	76	.679	.336	1.00	N 35 E	4.23	4.81	62.5	53.0	9.5	...	...	...	...	...
4	56.15	.244	55	.772	.528	0.57	N 56 E	5.41	7.00	64.5	54.4	10.1	...	...	...	...	...
5	60.95	.293	53	.755	.462	0.18	S 86 E	0.77	1.80	70.0	48.8	21.2	...	...	...	...	...
6	60.32	.335	62	.549	.214	0.77	S 81 E	1.07	2.16	71.4	44.0	27.4	...	...	...	...	...
7	57.47	.322	67	.556	.234	0.62	N 16 E	3.61	5.52	63.0	53.8	9.2	.005	1.0	...	...	.005	1.9
8	...	...	...	...	...	...	N 7 W	1.61	3.93	64.8	51.2	13.6	...	...	...	...	...	...
9	59.18	.260	52	.778	.518	0.22	S 34 W	2.31	3.14	68.4	39.4	29.0	...	...	...	...	...	...
10	61.58	.316	58	.632	.336	0.93	S 1 E	1.43	1.66	76.0	47.0	29.0	...	...	...	...	...	...
11	61.17	.379	71	.395	.015	0.75	S 34 W	2.44	2.87	71.0	50.8	20.2	...	...	...	...	...	...
12	68.25	.461	67	.314	.853	0.85	N 72 W	6.85	8.75	80.8	53.4	27.4	.010	6.7	...	...	.010	0.7
13	61.58	.365	64	.458	.20	0.70	N 54 W	4.87	6.42	69.0	57.4	11.6	...	...	...	...	...	...
14	58.33	.310	63	.577	.207	0.85	N 41 E	1.87	5.40	67.0	53.2	13.8	.025	1.0	...	...	.025	1.0
15	...	...	...	...	...	...	N 6 E	8.77	9.82	65.0	50.8	14.2	...	...	...	...	...	...
16	53.28	.231	58	.981	.731	0.28	S 88 E	4.39	5.04	60.6	43.8	16.8	...	...	...	...	...	...
17	62.85	.421	73	.463	.042	0.62	S 25 W	8.37	9.20	73.0	41.2	31.8	.037	0.6	...	...	.037	0.6
18	59.90	.458	88	.214	.756	1.00	N 79 W	2.24	8.78	67.2	56.0	11.2	.650	7.0	...	...	.650	7.0
19	52.10	.286	72	.394	.107	0.62	N 38 W	5.26	7.10	60.4	49.3	11.1	.925	1.5	...	...	.925	1.5
20	54.57	.316	74	.512	.196	0.63	S 25 W	4.18	5.33	63.5	41.6	21.9	.112	3.0	...	...	.112	3.0
21	58.05	.296	62	.639	.363	0.20	N 55 W	8.74	10.69	71.0	46.8	24.2	...	...	...	...	...	...
22	...	...	...	...	...	...	S 35 W	1.41	4.83	65.2	42.0	23.2	...	...	...	...	...	...
23	57.13	.387	83	.088	.301	0.97	N 68 E	6.76	7.06	61.8	52.4	9.4	.105	6.7	...	...	.105	6.7
24	56.70	.386	84	.588	.202	0.73	N 37 E	3.83	5.56	61.6	55.4	6.2	.013	2.1	...	...	.013	2.1
25	64.05	.371	63	.646	.275	0.20	N 46 W	3.36	9.17	74.0	51.2	22.8	...	...	...	...	...	...
26	73.32	.304	38	.623	.319	0.57	N 38 W	7.46	7.86	85.4	64.0	21.4	...	...	...	...	...	...
27	70.52	.308	53	.567	.169	0.30	S 53 W	4.17	6.37	79.6	55.2	24.4	...	...	...	...	...	...
28	69.57	.415	59	.506	.091	0.53	S 71 E	1.45	3.21	81.0	58.0	23.0	...	...	...	...	...	...
29	...	...	...	...	...	...	N 19 W	2.36	3.96	77.0	58.5	18.5	.025	2.5	...	...	.025	2.5
30	62.85	.393	67	.347	.28	0.05	N 34 W	14.99	15.29	72.8	61.0	11.8	...	...	...	...	...	...
	60.52	0.346	66	29.564	29.219	0.60	N 26 W	1.77	5.98	69.12	50.97	18.14	1.007	26.1	...	...	1.007	26.1

* Inappreciable.

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—JULY, 1862.

Days.	DAILY MEANS.					WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIS AND MELTED SNOW.									
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometre Pressure.	Dry Air Pressure.	Clouded Sky.	Direction.	Resistant Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.							
1	60.53	0.301	58	29.409	29.109	0.22	S 10 W	4.62	3.44	70.2	49.8	20.4	...	...	...	...	...			
2	61.47	.326	60	498	.173	0.35	S 76 E	2.97	3.33	70.8	50.2	20.6	...	...	...	...	...			
3	65.60	.461	74	775	.314	0.00	S 51 E	1.86	2.83	71.0	49.8	21.2	...	...	...	...	...			
4	72.22	.548	70	875	.327	0.03	S 12 W	3.33	3.97	83.8	55.0	28.8	...	...	...	...	...			
5	77.58	.598	64	747	.149	0.38	S 41 W	6.42	6.88	90.2	63.0	27.2	...	...	...	...	...			
6	...	...	...	...	...	...	N 62 W	6.51	9.43	95.5	67.8	27.7	...	...	...	...	...			
7	71.42	.447	58	431	...	0.78	S 72 W	2.35	3.02	82.5	61.2	21.3	...	...	...	...	...			
8	73.67	.557	68	342	28.785	0.80	S 7 W	2.13	3.36	82.6	61.0	21.6	0.320	2.0	...	...	0.320	2.0					
9	69.63	.488	69	310	28.831	0.82	S 28 W	8.23	8.45	79.5	64.6	14.9	...	...	...	...	...	0.047	0.8			
10	65.55	.300	51	655	29.335	0.67	N 19 W	7.73	8.03	76.0	54.2	21.8	...	...	...	...	...	...	...
11	63.32	.390	68	670	28.0	0.68	S 17 W	1.66	3.08	77.5	48.2	29.3	...	...	...	...	...	...	...
12	70.77	.473	64	433	28.959	0.98	S 67 W	6.62	7.25	83.9	52.0	31.9	...	...	...	...	...	...	0.1			
13	...	...	...	...	...	...	S 56 W	7.55	8.38	80.4	62.6	17.8	...	...	...	...	...	...	0.625	8.0		
14	64.78	.512	83	443	28.431	...	N 89 E	3.48	5.16	74.2	62.0	12.2	...	...	...	...	...	...	...	0.1		
15	64.28	.553	92	465	28.913	0.77	N 44 E	2.80	5.32	73.0	59.8	13.2	...	...	...	...	...	...	...	1.40	2.0	
16	63.32	.424	73	509	29.175	0.65	N 20 W	7.13	8.30	70.6	61.0	9.6	...	...	...	...	...	...	...	...	...
17	61.52	.380	71	608	309	0.47	N 86 E	2.71	6.10	68.2	50.4	18.4	...	...	...	...	...	...	...	...	...
18	63.82	.429	72	715	286	0.85	N 81 E	8.37	69.5	54.0	43.5	...	...	...	...	...	...	...	...	...	...
19	66.70	.565	86	533	28.908	0.92	S 80 E	4.73	5.29	72.0	62.3	9.7	1.335	4.5	...	...	...	...	...	...	1.335	4.5
20	...	...	...	...	...	...	N 77 W	6.69	8.13	78.8	63.8	15.0	0.290	1.6	...	...	...	...	...	...	...	...
21	64.23	.545	91	409	28.954	...	N 6 E	0.33	1.37	67.2	61.4	5.8	...	...	...	...	...	...	...	...	...	...
22	67.35	.569	85	545	28.976	1.00	S 42 E	4.18	5.07	72.8	62.8	10.0	...	...	...	...	...	...	...	...	...	...
23	70.23	.510	71	310	28.801	0.52	N 76 W	5.72	7.56	81.0	65.2	14.8	...	...	...	...	...	...	...	...	...	...
24	63.27	.473	81	409	28.936	0.65	S 83 W	4.04	5.95	70.8	54.0	16.8	...	...	...	...	...	...	...	...	...	...
25	62.07	.384	68	498	29.114	0.07	S 71 W	4.40	6.60	72.0	51.8	20.2	...	...	...	...	...	...	...	...	...	...
26	66.57	.411	65	567	136	0.23	N 72 W	3.98	6.86	76.8	56.0	20.8	...	...	...	...	...	...	...	...	...	...
27	S 7 W	2.76	3.75	75.0	53.4	21.6		
28	64.75	.532	87	528	28.996	...	S 34 W	4.00	5.18	72.0	60.0	12.0		
29	66.93	.551	83	562	28.951	0.67	S 56 W	1.95	4.37	73.0	63.0	12.6		
30	68.48	.489	71	628	29.139	0.17	N 38 W	7.52	8.18	75.0	60.0	12.0		
31	70.25	.534	72	701	167	0.63	S 87 W	0.91	4.43	76.5	60.5	16.0		
	65.70	0.473	7	29.547	29.075	0.56	S 80 W	1.42	5.80	76.42	55.14	18.28	5.341	35.4	5.341	35.4

* Inappreciable.

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GENERAL METEOROLOGICAL ABSTRACT — AUGUST, 1862.

Days.	DAILY MEANS.				WIND.				EXTREMES OF TEMPERATURE.			RAI.		S.N.O.W.		RAI AND MELTED SNOW.		
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Direction.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	72.2	0.567	71	29.651	29.685	0.37	S 63 W	S 31 E	6.14	81.1	69.0	21.1	0.06	0.5	...	0.005	0.5	
2	71.8	0.565	73	29.641	29.676	0.45	S 69 E	S 26 E	2.69	3.71	79.8	66.4	13.4	...	...	...	...	...
3	71.2	...	...	...	...	...	S 73 E	S 24 W	4.30	5.33	79.5	65.4	14.1	...	...	...	...	...
4	71.2	737	79	29.590	28.807	0.60	S 64 W	S 61 W	8.60	8.93	84.0	68.8	15.2	0.1	...	...	...	...
5	70.17	737	79	29.588	29.006	0.65	S 64 W	S 61 W	6.57	7.60	79.8	70.2	9.6	0.15	...	...	...	...
6	66.80	460	70	29.772	3.12	0.28	S 70 W	S 27 W	1.27	5.03	75.5	63.5	22.0	0.45	...	...	...	...
7	63.65	588	81	29.673	3.08	0.78	S 39 E	S 21 S	2.15	4.64	76.5	63.0	13.5	3.12	2.0	...	...	...
8	79.08	772	75	29.441	28.663	0.40	S 54 W	S 35 W	6.55	7.20	89.5	70.0	19.5	*	0.2	...	...	...
9	73.73	630	75	29.378	28.738	0.53	S 79 W	S 28 W	10.05	84.6	71.5	13.1	6.8	0.68	0.5	...	...	...
10	...	...	...	...	...	...	S 75 E	S 30 E	4.46	76.2	60.5	15.7	0.61	1.0	...	...	...	...
11	71.33	610	79	29.486	28.876	0.42	S 89 W	S 26 W	2.46	6.00	79.8	58.6	21.2	0.61	1.0	...	...	...
12	67.88	393	89	29.671	29.284	0.12	S 49 W	S 44 W	9.44	10.00	79.0	59.2	19.8	...	...	...	...	...
13	63.15	383	98	29.771	3.88	0.40	S 72 E	S 27 E	1.57	3.90	79.4	55.3	24.1	...	...	...	...	...
14	62.17	492	88	29.516	3.24	0.70	S 40 W	S 40 W	4.03	5.19	69.2	58.8	10.4	...	...	...	...	...
15	61.10	323	61	29.657	3.34	0.52	S 40 W	S 31 W	8.51	8.92	69.5	52.8	16.7	...	...	...	...	...
16	58.80	368	73	29.896	3.28	0.18	S 65 W	S 3 S	2.15	4.52	68.8	52.5	16.3	...	...	...	...	...
17	...	...	...	...	...	...	S 8 E	S 3 E	3.42	3.92	70.8	46.0	24.8	...	...	...	...	...
18	61.42	459	76	29.688	2.29	0.55	S 43 E	S 27 E	2.27	4.76	74.0	53.5	20.5	4.20	0.8	...	...	...
19	61.97	445	72	29.650	2.95	0.23	S 50 W	S 27 E	1.79	3.28	75.0	54.2	20.8	...	...	...	...	...
20	68.57	517	73	29.682	1.63	0.30	S 50 W	S 27 E	0.70	4.64	79.0	55.5	23.5	...	...	...	...	...
21	68.85	552	78	29.622	0.71	0.75	S 31 E	S 11 E	5.11	5.60	74.8	55.0	19.8	...	...	...	...	...
22	68.80	580	81	29.498	28.828	0.65	S 79 W	S 68 W	7.55	7.92	65.8	52.8	13.4	3.0	...	...	...	...
23	62.55	357	64	29.687	29.330	0.13	S 25 W	S 25 W	5.68	7.38	79.2	62.8	16.4	4.5	...	...	...	...
24	...	...	...	...	...	...	S 65 E	S 39 E	7.38	9.49	73.8	53.8	20.0	...	...	...	...	...
25	63.07	463	70	29.678	2.15	0.48	S 42 W	S 29 W	4.97	5.79	62.0	48.4	13.6	...	...	...	...	...
26	72.68	582	71	29.504	28.922	0.47	S 79 W	S 28 W	2.93	3.62	75.8	49.0	26.8	0.68	0.5	...	...	...
27	67.28	506	80	29.482	28.886	1.00	S 67 E	S 51 E	1.51	4.05	71.5	64.2	7.3	3.0	...	...	...	...
28	69.45	571	64	29.400	28.820	0.42	S 60 W	S 33 W	0.57	8.33	67.0	64.0	14.0	...	...	...	...	...
29	61.00	355	61	29.326	29.326	0.08	S 27 W	S 27 W	7.29	7.44	71.0	58.2	14.8	...	...	...	...	...
30	57.43	297	63	29.848	3.51	0.15	S 13 W	S 13 W	1.49	2.65	67.0	44.8	24.2	...	...	...	...	...
31	...	...	...	...	...	...	S 36 E	S 36 E	2.58	5.46	63.2	46.2	23.0	3.5	...	...	...	...
...	67.60	0.510	74	29.616	29.193	0.45	N 75 W	N 67 W	1.67	5.96	76.11	58.22	17.89	3.433	37.1	...	...	...

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT.—SEPTEMBER, 1862.

Days.	DAILY MEANS.				Clouded Sky.	WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAINS AND MELTED SNOW.	
	Temperature of Air.	Vapour.	Relative Humidity.	Barometric Pressure.		Pressure of Dry Air.	Direction.	Force.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Apparition in hours.	Depth in inches.	Apparition in hours.	Depth in inches.	Apparition in hours.
1	61.38	0.484	84	29.197	28.713	0.75	N 54 W	12.26	71.0	63.6	7.4	...	...	...	...	...	...
2	47.45	.321	68	.617	29.396	0.20	N 27 W	8.67	53.2	39.0	14.0	...	...	...	...	...	...
3	55.50	.319	71	.742	.422	0.23	S 7 W	3.19	61.8	29.0	25.8	...	...	...	...	...	...
4	64.45	.483	80	.696	.213	0.17	S 28 W	5.65	57.1	52.8	22.4	...	...	...	...	...	...
5	69.32	.557	78	.624	.007	0.78	S 27 W	3.47	3.58	79.4	57.5	21.9	0.800	...	...	...	...
6	69.63	.664	92	.555	28.891	1.00	S 22 W	1.68	2.41	77.0	64.2	12.8	.569	6.1	...	...	...
7	67.27	.450	68	.568	20.118	0.68	N 79 W	7.52	7.67	75.5	64.8	10.7	.040	2.3	...	...	...
8	57.37	.398	82	.829	.481	0.03	N 79 W	8.76	9.87	75.5	65.0	10.5	...	...	...	...	...
9	61.03	.463	74	.837	.434	0.00	N 77 E	1.14	2.69	65.0	49.4	15.6	...	...	...	...	...
10	66.22	.508	78	.619	.161	0.28	S 69 E	2.42	2.87	69.0	49.8	19.2	...	...	...	...	...
11	66.22	.430	77	.686	.266	0.73	N 27 W	10.97	11.64	68.8	63.2	5.6	.007	1.0	...	...	...
12	61.55	.430	77	.686	.700	0.53	N 68 E	2.67	3.75	55.0	44.8	10.2	...	...	...	...	...
13	48.70	.280	81	.980	...	...	N 12 E	6.82	2.23	62.0	45.0	17.0	...	...	...	...	...
14	57.48	.497	91	.786	.349	0.77	N 22 E	2.72	4.06	65.0	48.0	16.4	.037	1.5	...	...	...
15	56.97	.305	79	.828	.462	0.58	N 83 E	3.39	3.98	62.2	54.6	7.6	...	...	...	...	...
16	62.82	.344	80	.573	.639	0.53	N 86 E	3.81	6.34	67.0	51.8	15.2	...	...	...	...	...
17	62.82	.542	83	.458	28.917	0.70	S 80 W	3.72	5.71	74.0	64.0	10.0	.195	2.2	...	...	...
18	66.75	.381	77	.765	29.384	0.50	N 82 W	2.81	4.86	66.8	55.4	11.4	...	...	...	...	...
19	58.22	.396	82	.751	.355	0.30	S 32 W	2.69	3.85	37.8	49.8	18.0	...	...	...	...	...
20	58.22	.396	82	.751	.355	...	S 83 E	2.80	3.00	65.0	54.2	10.8	...	...	...	...	...
21	62.07	.473	85	.737	.284	0.23	S 16 W	2.28	2.62	73.8	48.4	25.4	...	...	...	...	...
22	64.75	.488	80	.597	.008	0.65	S 80 W	2.63	7.20	75.0	53.8	21.2	.385	4.5	...	...	...
23	53.40	.270	68	.681	.411	0.35	N 17 W	6.73	6.82	60.2	52.8	7.4	...	...	...	...	...
24	54.58	.333	77	.730	.397	0.05	S 26 W	3.35	4.38	64.0	45.3	18.0	...	...	...	...	...
25	57.48	.378	78	.720	.312	0.00	S 28 W	2.63	2.99	67.8	45.3	22.8	...	...	...	...	...
26	57.48	.395	84	.682	.287	0.00	S 84 E	0.61	1.04	66.2	47.3	24.2	...	...	...	...	...
27	57.42	.395	84	.682	.287	...	S 8 E	0.66	1.50	70.6	52.6	18.6	...	...	...	...	...
28	58.88	.415	82	.611	.196	0.62	N 6 E	6.19	6.71	68.0	54.5	13.5	...	...	...	...	...
29	49.63	.293	82	.739	.506	1.00	N 64 E	5.08	5.52	...	46.0	...	.315	8.3	...	...	...
30	59.59	0.418	80	29.683	29.265	0.47	N 59 W	1.07	5.11	65.43	52.77	12.66	.234	29.7	...	...	2.344 29.7

TORONTO METEOROLOGICAL RESULTS.

GENERAL METEOROLOGICAL ABSTRACT.—OCTOBER, 1862.

Days	DAILY MEANS.				WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.			
	Temperature of the Air.	Pressure of Vapour.	Relative Humidity.	Barometric Pressure.	Pressure of Dry Air.	Clouded Sky.	Direction.	Height.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	50.27	30.38	92	29.747	29.409	1.00	N 60 E	5.59	5.83	55.2	43.0	12.2	0.087	3.5	.085	3.5	.085	
2	58.47	47.3	96	697	194	1.00	S 53 E	0.28	0.65	63.2	51.4	11.8	.087	5.0	.087	5.0	.087	
3	60.80	52.1	97	645	124	1.00	N 78 E	3.48	3.53	62.5	55.9	6.6	.565	10.0	.565	10.0	.565	
4	61.03	400	72	469	609	0.67	N 86 W	15.05	17.21	73.8	50.5	23.3	.072	0.9	.072	0.9	.072	
5	...	...	...	...	...	...	N 28 W	3.70	3.88	60.0	40.4	19.6	...	...	...	...	...
6	54.63	370	85	555	185	0.95	S 23 W	4.11	4.76	63.0	39.0	24.0	1.85	6.7	1.85	6.7	1.85	
7	67.55	363	88	392	287	0.40	S 41 W	6.31	6.32	74.0	55.4	18.6	*	1.0	*	1.0	1.0	
8	69.38	354	77	394	288.40	0.57	S 52 W	8.27	10.89	76.6	64.0	12.6	1.75	2.5	1.75	2.5	1.75	
9	54.95	339	78	735	29.397	1.00	N 7 W	3.68	3.29	58.8	55.5	3.3	.030	4.7	.030	4.7	.030	
10	48.42	292	86	634	312	1.00	N 1 E	8.95	9.53	52.8	49.8	3.0	.270	8.7	.270	8.7	.270	
11	46.15	242	76	730	508	0.47	N 20 W	5.49	5.58	55.0	43.6	11.4	.050	1.5	.050	1.5	.050	
12	...	...	...	...	...	...	N 13 E	3.60	3.81	52.6	35.0	17.6	...	...	...	...	...
13	50.10	310	85	576	266	0.69	N 79 E	0.43	1.30	58.4	42.0	16.4	...	...	...	...	...
14	46.02	259	83	691	432	0.84	N 25 W	8.01	8.34	58.2	40.4	17.8	...	...	...	...	...
15	38.92	191	81	821	630	0.95	N 68 E	2.66	3.43	42.0	34.8	7.2	...	...	...	...	...
16	47.02	290	90	482	192	0.93	S 44 W	2.50	3.92	49.4	38.0	11.4	.055	7.9	.055	7.9	.055	
17	44.98	219	74	794	485	0.32	N 65 W	4.70	4.78	53.5	40.8	12.7	...	...	...	...	...
18	47.70	265	79	788	523	0.18	S 25 W	5.08	5.35	61.2	33.0	28.2	...	...	...	...	...
19	...	...	...	...	...	...	N 61 W	13.03	13.76	55.0	45.2	9.8	.020	2.5	.020	2.5	.020
20	42.78	213	76	615	402	0.80	S 21 W	8.79	9.09	51.8	29.5	22.3	...	...	...	...	...
21	48.77	302	87	117	28.815	0.95	S 56 W	6.61	7.40	51.8	43.4	8.4	.635	4.4	.635	4.4	.635	
22	42.77	206	76	343	29.137	0.83	N 67 W	16.22	16.57	48.2	40.8	7.4	*	0.2	*	0.2	0.2	
23	38.23	192	83	858	686	0.53	S 83 W	2.32	4.80	45.0	33.2	11.8	.040	1.5	.040	1.5	.040	
24	47.45	253	77	662	410	1.00	S 79 W	8.25	11.67	56.0	34.5	21.5	.100	4.0	.100	4.0	.100	
25	35.37	175	85	974	799	0.95	N 11 W	5.61	6.50	39.0	36.0	3.0	...	...	...	...	...
26	...	...	...	...	...	...	N 14 E	5.11	5.57	31.8	29.0	2.8	...	...	...	...	...
27	34.77	167	83	540	373	0.65	N 47 W	3.69	3.82	43.0	26.2	16.8	...	...	...	...	...
28	40.43	216	86	648	432	0.95	S 14 E	3.01	3.29	45.4	31.5	13.9	0.315	6.5	0.315	6.5	0.315	
29	42.13	223	83	702	479	0.60	N 88 W	7.20	7.33	49.0	40.0	9.0	*	0.2	*	0.2	0.2	
30	44.75	235	79	617	412	0.33	S 24 W	2.09	3.70	53.5	32.8	20.7	*	0.2	*	0.2	0.2	
31	51.17	293	71	519	250	0.10	S 42 W	6.19	6.42	59.0	40.8	18.2	...	...	...	...	...
	48.70	0.300	82	29.619	29.319	0.72	N 75 W	2.89	6.53	51.80	41.43	13.36	2.684	71.7	0.5	4.0	2.734	75.7

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT.—NOVEMBER, 1882.

Days	DAILY MEANS.				Clouded Sky.	WIND.		EXTREMES OF TEMPERATURE.		RAINF.		SNOW.		RAINS AND MELTED SNOW.				
	Temperature of Air.	Wetness of Air.	Relative Humidity.	Barometric Pressure.		Pressure of Dry Air.	Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	50.35	0.2655	72	29.5566	29.271	0.28	S 34 W	2.23	58.0	39.0	19.0	...	...	...	...	...	...
2	...	...	...	...	...	...	N 45 W	10.40	12.26	53.0	44.4	8.6	0.680	...	...	...	...
3	37.65	.160	70	.578	.418	0.45	N 32 W	10.41	11.35	45.8	36.8	9.0	*	...	...	...	...
4	36.50	.179	81	.746	.617	0.73	S 63 E	2.90	3.58	40.0	26.8	13.2	...	...	...	...	...
5	38.37	.185	78	.550	.365	0.35	N 33 W	8.84	8.99	49.3	31.0	18.3	.050	...	...	...	...
6	28.62	.105	68	.687	.582	0.45	N 25 E	5.31	6.22	33.6	24.4	9.2	...	...	...	...	...
7	27.33	.102	69	.775	.673	0.77	N 28 E	7.88	8.13	31.4	22.6	8.8	...	...	...	...	...
8	26.65	.128	89	.736	.607	1.00	N 10 E	5.46	5.99	28.8	23.4	5.4	0.2	1.0	...	...	...
9	...	...	...	...	...	...	N 63 W	6.10	6.72	42.0	27.0	15.0	...	...	...	...	...
10	37.35	.166	73	.739	.633	0.48	N 53 W	2.83	4.33	46.6	33.5	13.1	...	...	...	...	...
11	44.80	.236	79	.494	.258	0.75	S 51 W	5.42	5.35	50.2	31.0	19.2	.045	1.5	...	...	...
12	39.33	.182	76	.678	.496	0.95	N 69 W	5.25	5.33	44.0	36.0	8.0	...	...	...	...	...
13	39.38	.185	76	.803	.618	0.98	S 55 W	5.60	5.83	42.8	35.0	7.8	...	...	...	...	...
14	35.60	.157	75	.933	.776	0.77	N 41 W	9.53	11.97	43.2	35.8	7.4	*	0.2	...	...	...
15	22.80	.089	81	.30427	.30329	0.22	N 50 E	7.31	7.75	27.6	16.2	11.4	...	...	...	...	...
16	...	...	...	...	...	...	S 65 E	5.45	6.27	40.0	21.8	18.2	...	...	...	...	...
17	43.13	.236	84	.29535	.29719	1.00	N 17 W	3.71	4.40	49.6	35.0	14.6	...	...	...	...	...
18	39.37	.210	86	.835	.685	1.00	N 78 E	2.85	3.37	43.0	33.8	7.2	.260	5.0	...	...	...
19	42.58	.262	96	.439	.178	1.00	N 10 E	5.75	5.82	44.2	39.0	5.2	.660	23.0	...	...	...
20	34.87	.173	85	.350	.176	0.97	N 7 W	7.93	8.07	38.5	33.8	4.7	.285	9.0	...	...	...
21	29.68	.145	87	.508	.363	0.70	N 56 W	1.42	1.97	33.4	25.5	7.9	...	...	...	...	...
22	31.45	.146	83	.505	.358	0.75	N 30 W	10.54	10.82	37.2	25.5	11.7	...	...	...	...	...
23	...	...	...	...	...	...	N 80 W	10.92	12.11	31.8	23.2	8.6	...	...	...	...	...
24	35.73	.165	79	.592	.427	0.83	N 33 W	8.22	8.48	41.0	26.6	14.4	...	...	...	...	...
25	39.40	.199	82	.472	.273	0.98	S 53 W	3.21	3.32	44.0	34.5	9.5	*	0.5	...	...	...
26	34.57	.154	77	.469	.315	0.95	N 62 W	6.34	6.80	38.5	32.5	6.0	...	...	...	...	...
27	31.82	.147	81	.348	.201	1.00	S 34 W	5.32	6.41	34.2	32.0	2.2	...	...	...	...	...
28	30.50	.142	83	.191	.049	0.73	S 67 W	4.25	4.52	35.0	29.1	5.9	...	...	...	...	...
29	30.85	.154	89	.337	.243	1.00	S 43 W	0.74	1.81	36.0	25.0	11.0	...	...	...	...	...
30	...	...	...	...	...	...	N 36 E	1.37	2.90	35.0	29.7	5.3	...	...	...	...	...
...
...	33.58	0.171	80	29.636	29.465	0.79	N 46 W	3.00	6.60	40.59	30.20	10.39	2.205	51.5	5.3	51.0	2.735	102.5

* Inappreciable.

* Inappreciable.

GENERAL METEOROLOGICAL ABSTRACT—DECEMBER, 1862.

Days.	DAILY MEANS.				Clouded Sky.	WIND.			EXTREMES OF TEMPERATURE.			RAIN.		SNOW.		RAIN AND MELTED SNOW.	
	Temperature of the Air.	Pressure of Vapor.	Humidity.	Barometric Pressure.		Dry Air.	Direction.	Velocity.	Mean Velocity.	Maximum.	Minimum.	Difference.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.	Depth in inches.	Approximate duration in hours.
1	33.07	0.162	85	29.665	0.55	N 44 W	5.14	5.51	35.8	32.0	3.8	...	...	3.0	6.5	0.300	6.5
2	24.55	0.110	83	29.861	0.73	N 63 W	3.80	4.03	29.8	18.2	11.6	...	...	*	0.1	*	0.1
3	28.08	0.131	84	29.602	0.71	S 12 W	3.10	4.02	31.6	23.5	8.1	...	...	3.0	7.5	.300	7.5
4	29.95	0.130	78	29.545	0.93	S 81 W	5.33	5.45	34.0	19.4	14.6	...	...	...	...	...	...
5	26.48	0.110	76	29.352	0.87	N 73 W	7.86	8.87	30.2	20.3	9.7	...	...	...	...	...	...
6	8.97	0.060	75	29.421	0.25	N 52 W	21.30	21.32	13.6	10.6	3.0	...	...	...	...	...	...
7	...	...	94	29.797	0.95	N 18 W	6.46	6.92	10.5	1.5	12.0	...	...	3.5	11.1	.350	11.0
8	19.38	0.102	88	29.812	0.80	S 34 E	4.83	7.30	25.8	2.0	23.8	...	...	...	...	...	...
9	25.53	0.122	88	29.690	1.00	S 70 W	4.72	7.01	30.6	21.3	9.3	...	...	...	...	...	...
10	34.72	0.165	82	29.670	0.94	S 50 W	9.94	10.07	38.0	25.9	12.1	...	...	...	...	...	...
11	41.60	0.209	75	29.549	0.35	S 51 W	11.08	11.68	47.0	31.5	12.5	...	...	...	...	...	...
12	38.37	0.177	76	29.605	0.82	N 73 E	5.10	6.10	42.0	31.0	8.0	...	...	...	...	...	...
13	40.50	0.231	91	29.647	1.00	S 75 E	2.52	3.08	45.4	37.0	8.4	0.240	7.0	...	...	...	...
14	44.27	0.293	90	29.629	...	S 22 W	2.14	2.59	50.1	39.8	10.3	2.10	2.5	...	...	...	...
15	31.42	0.135	75	29.633	0.75	N 88 W	4.19	6.93	50.0	44.5	5.5	1.250	15.0	0.2	1.0	1.270	16.0
16	17.98	0.079	81	29.631	0.63	N 23 W	7.38	7.77	21.8	16.0	5.8	...	...	0.5	1.3	.050	1.3
17	27.07	0.116	78	29.913	0.97	S 29 W	14.63	15.17	33.0	15.6	17.4	...	...	*	0.2	*	0.2
18	16.73	0.086	80	29.004	0.18	N 29 W	18.17	18.83	34.0	17.5	16.5	...	...	...	...	...	...
19	5.30	0.041	74	29.370	0.08	N 55 W	2.32	3.53	16.5	3.4	13.0	...	...	...	...	...	...
20	...	...	85	29.655	...	S 40 E	5.51	5.82	27.0	5.3	21.7	...	...	...	...	...	...
21	33.08	0.160	85	29.655	...	S 72 W	4.05	4.58	39.0	20.7	18.3	...	...	...	...	...	...
22	31.62	0.148	82	29.872	0.74	N 17 E	4.69	6.53	36.0	31.5	4.5	...	...	...	...	...	...
23	33.48	0.168	87	29.775	0.610	S 75 E	5.56	5.83	41.0	24.8	16.2	...	...	0.7	...	...	...
24	...	...	93	29.665	...	S 52 W	2.47	2.90	46.6	32.6	14.0	...	...	...	...	...	...
25	36.30	0.190	93	29.665	...	N 23 E	4.14	5.74	38.0	35.2	2.8	0.245	16.0	...	...	...	...
26	34.98	0.178	88	29.444	0.88	N 76 W	4.15	4.57	36.6	32.8	2.8	...	...	...	...	...	...
27	...	...	80	29.680	...	S 44 W	6.43	6.57	39.8	32.8	7.0	...	...	...	...	...	...
28	37.05	0.177	80	29.680	...	N 61 W	5.72	7.37	41.2	33.2	8.0	...	...	...	...	...	...
29	26.68	0.108	74	29.661	0.85	N 25 E	7.92	8.20	29.0	27.0	2.0	...	...	...	...	...	...
30	21.00	0.097	85	29.883	0.02	N 13 W	0.94	1.98	27.8	15.0	12.8	...	...	...	...	...	...
31	25.78	0.142	83	29.678	0.75	N 73 W	3.17	7.58	34.1	23.57	10.54	1.945	41.2	10.4	30.1	2.985	71.3

* Inappreciable.

TABLE I.
Monthly Means of the Temperature of the Air, at each of the Observation hours, from 1860 to 1862 inclusive.

Toronto Astronomical Time.		2 ^h	4 ^h	10 ^h	12 ^h	15 ^h	20 ^h	Means.
January	1860	24.31	25.07	23.12	21.68	21.51	22.00	23.38
"	1861	22.86	22.67	19.43	18.51	17.78	17.91	19.86
"	1862	25.01	24.69	21.53	20.44	19.25	19.45	21.71
	Means	24.73	24.31	21.36	20.21	19.51	19.79	21.65
February	1860	26.57	26.45	21.66	20.62	20.48	21.17	22.83
"	1861	28.82	28.45	26.05	25.32	24.49	24.23	26.06
"	1862	25.34	25.16	21.87	21.67	20.05	20.31	22.50
	Means	26.91	26.69	23.19	22.54	21.34	22.10	23.80
March	1860	30.92	40.21	33.29	32.26	29.39	31.81	34.48
"	1861	30.87	31.08	26.52	25.14	23.17	24.73	26.92
"	1862	33.14	32.83	28.37	26.88	24.67	26.83	28.79
	Means	34.64	34.71	29.29	28.09	25.74	27.79	30.06
April	1860	44.80	44.35	37.09	37.00	34.73	38.37	39.55
"	1861	46.92	47.35	41.29	39.87	36.61	40.09	42.02
"	1862	44.09	43.79	37.77	37.14	36.02	38.55	39.56
	Means	45.30	45.16	39.02	38.00	35.79	39.00	40.38
May	1860	61.39	61.14	53.42	51.33	50.77	53.11	55.53
"	1861	67.70	67.08	58.08	56.70	56.42	61.17	61.29
"	1862	58.26	58.52	49.41	47.78	47.36	51.71	52.17
	Means	57.64	57.53	49.26	47.43	47.07	51.46	51.73
June	1860	68.65	68.98	60.25	58.95	58.17	62.97	63.16
"	1861	67.70	67.08	58.08	56.70	56.42	61.17	61.29
"	1862	66.57	66.15	57.33	56.45	55.44	61.29	60.52
	Means	67.64	67.40	58.75	57.37	57.01	61.78	61.66
Toronto Astronomical Time.		2 ^h	4 ^h	10 ^h	12 ^h	15 ^h	20 ^h	Means.
July	1860	70.30	70.07	60.45	58.94	58.33	64.45	63.92
"	1861	71.49	71.58	62.41	60.76	60.56	63.40	63.37
"	1862	73.08	73.21	63.46	62.52	61.33	66.60	66.70
	Means	71.62	71.62	62.11	60.41	60.41	65.48	65.33
August	1860	71.18	70.85	61.68	60.24	58.00	63.21	63.46
"	1861	71.73	70.91	62.67	61.45	60.48	65.59	65.48
"	1862	74.06	74.10	64.58	63.27	62.36	67.25	67.60
	Means	72.33	71.95	62.98	61.65	60.48	65.68	65.85
September	1860	61.53	60.44	52.60	51.56	50.17	55.71	55.34
"	1861	64.72	64.46	56.80	55.61	54.38	58.44	59.07
"	1862	66.26	63.73	57.01	55.40	54.34	58.77	59.59
	Means	64.17	63.54	55.48	54.19	52.96	57.64	58.00
October	1860	52.06	51.19	43.70	43.13	43.74	45.71	47.25
"	1861	53.94	52.96	47.50	46.50	43.81	47.71	48.74
"	1862	53.79	52.23	47.94	47.15	44.53	46.60	48.70
	Means	53.26	52.13	47.05	46.26	44.03	46.67	48.23
November	1860	41.80	40.80	37.00	36.17	35.59	36.32	37.65
"	1861	40.83	39.68	36.21	35.45	35.05	35.63	37.14
"	1862	39.50	38.05	34.34	33.72	33.46	34.31	35.58
	Means	40.74	39.51	35.85	35.11	34.70	35.42	36.89
December	1860	26.44	25.18	23.02	23.30	23.31	22.77	24.00
"	1861	34.84	33.94	30.52	29.58	29.14	28.76	31.13
"	1862	31.57	30.57	28.03	27.15	27.73	27.59	28.78
	Means	30.65	29.90	27.19	26.68	26.73	26.37	27.97

* Inappreciable.

TABLE II.

Monthly and Annual Means of the Temperature of the Air, furnished by six daily observations, from 1860 to 1862 inclusive.

	January.	February	March.	April.	May.	June.	July.	August.	September	October.	November	December	Year.
1860	23.38	22.83	34.48	39.55	53.53	63.16	63.92	61.46	59.84	47.25	37.95	24.00	44.32
1861	19.86	26.06	26.92	42.02	47.50	61.29	65.37	65.48	59.07	48.74	37.14	31.13	44.22
1862	21.71	22.50	28.79	33.56	52.17	60.52	66.70	67.60	59.59	48.70	35.58	28.78	44.35
Mean 1860 to 1862 ..	21.65	23.80	30.06	40.38	51.73	61.66	65.33	65.85	58.00	48.23	36.89	27.97	44.30
Normal Means	21.85	23.69	30.23	41.22	51.55	61.09	66.33	65.72	57.42	44.99	36.14	27.06	44.19
Difference from } Normal..... }	-3.20	+0.11	-0.17	-0.84	+0.18	+0.57	-1.00	+0.13	+0.58	+3.24	+0.75	+0.91	+0.11
Mean 1854 to 1859 ..	22.46	20.62	29.13	40.35	51.45	61.26	68.80	65.87	58.43	46.24	36.57	24.79	43.83

TABLE III.

Monthly Means of the Temperature of the Air at each of the six observation hours, for the period 1860 to 1862 inclusive.

Toronto Astronomical Time.	January.	February	March.	April.	May.	June.	July.	August.	September	October.	November	December.	Year.
2 ^h	24.73	26.91	34.64	45.30	57.64	67.64	71.62	72.33	64.17	53.26	40.74	30.95	49.16
4 ^h	24.31	26.69	34.71	45.16	57.53	67.40	71.62	71.95	63.54	52.13	39.51	29.90	48.71
10 ^h	21.36	23.19	29.39	39.02	49.26	58.75	62.11	62.58	55.48	47.05	35.85	27.19	42.61
12 ^h	20.21	22.54	28.09	38.09	47.43	57.37	60.74	61.65	54.19	46.26	35.11	26.68	41.52
18 ^h	19.51	21.34	25.74	35.79	47.07	57.01	60.41	60.48	52.96	44.03	34.70	26.73	40.48
20 ^h	19.79	22.10	27.79	39.00	51.46	61.78	65.48	65.68	57.64	46.67	35.42	26.37	43.26

TABLE IV.

Monthly Mean Abnormal Variations of Temperature, without regard to sign, or mean differences without regard to sign between the normal temperature of the day and hour and the observed temperature of the same day and hour, for each month of the years 1860 to 1862.

	January.	February	March.	April.	May.	June.	July.	August.	September	October.	November	December.	Year.
1860	9.2	10.4	8.3	6.6	6.1	4.0	4.4	4.7	6.1	6.0	5.8	6.2	6.4
1861	8.1	8.9	8.1	4.9	5.3	5.2	4.8	4.3	4.6	5.7	3.4	10.1	6.1
1862	7.9	7.0	4.4	6.0	5.6	4.8	4.4	4.9	5.8	6.7	5.3	8.5	5.9
Mean 1860 to 1862 ..	8.4	8.8	6.9	5.5	5.7	4.7	4.6	4.6	5.5	6.1	4.8	8.2	6.1
Mean 1854 to 1859 ..	9.4	10.1	7.9	5.5	5.1	5.7	5.5	4.5	5.9	6.0	5.8	8.8	6.7
Mean 1854 to 1862 ..	9.1	9.7	7.0	5.5	5.3	5.4	5.2	4.5	5.8	6.0	5.5	8.6	6.5

TABLE V.

Monthly Mean Abnormal Variations of Temperature, without regard to sign, at each observation hour, for the period 1860-1862.

Year.	Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
														1860 to 1862.	1854 to 1859.
43.32	2h	7.6	7.9	6.9	6.2	6.4	6.6	6.9	4.6	6.7	6.6	4.5	7.9	6.2	6.8
44.22	4	7.6	7.7	6.9	6.1	6.3	5.6	6.0	4.6	5.6	5.3	4.3	8.0	6.2	6.6
44.35	10	8.5	9.3	6.4	5.5	5.5	4.3	3.7	4.7	5.8	6.6	4.5	8.5	6.1	6.5
44.30	12	8.7	9.0	6.5	5.4	5.4	4.3	4.3	4.9	5.8	6.8	4.8	8.4	6.2	6.7
41.19	18	9.0	9.6	7.6	4.7	5.4	4.1	3.7	5.0	5.4	6.6	5.6	8.4	6.3	6.9
41.19	20	8.8	9.1	7.4	5.0	5.1	4.2	3.7	4.1	4.7	5.8	5.3	8.2	6.0	6.7

TABLE VI.

Half-yearly and Yearly Mean Abnormal Variations of Temperature, without regard to sign, for the six observation hours.

Year.	Toronto Astronomical Time.		2h	4h	10h	1h	15h	20h	2h and 4h	10h, 12h, 18h, and 20h.	All hours.
	Summer	5.9	5.8	5.1	5.2	5.1	5.1	5.90	5.13	5.37	
	Year	6.8	6.6	6.5	6.7	6.8	6.7	6.69	6.69	6.68	
1860 to 1862	Winter	6.7	6.6	7.3	7.4	7.8	7.4	6.68	7.48	7.20	
	Summer	5.7	5.7	4.9	5.0	4.7	4.5	5.72	4.78	5.08	
	Year	6.2	6.2	6.1	6.2	6.2	5.9	6.20	6.13	6.13	
1854 to 1862	Winter	7.3	7.1	7.7	7.9	8.4	8.1	7.22	7.69	7.75	
	Summer	5.9	5.8	5.0	5.2	5.0	4.9	5.81	5.01	5.39	
	Year	6.6	6.5	6.4	6.5	6.7	6.5	6.53	6.50	6.53	

TABLE VII.

Probable Variability of the Monthly Means of Temperature at each of the six observation hours, in a single year, together with their half-yearly and yearly averages, from the years 1854 to 1862 inclusive.

Year.		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.		
														Winter.	Summer.	Year.
49.16	2h	3.49	2.47	2.43	1.94	2.38	2.20	2.76	1.66	1.95	1.69	1.45	3.12	2.44	2.08	2.26
48.74	4	3.31	2.54	2.59	1.76	2.36	2.13	2.69	1.37	1.71	1.46	1.30	3.10	2.38	1.90	2.14
42.64	10	3.53	3.52	2.69	1.56	1.82	1.76	1.36	1.10	1.21	1.54	1.26	3.02	2.59	1.47	2.03
41.52	12	3.67	3.85	2.76	1.52	1.76	1.88	1.33	1.14	1.07	1.56	1.30	3.04	2.70	1.45	2.07
40.48	18	3.90	3.65	2.98	1.32	1.72	1.85	1.59	1.09	1.25	1.48	1.24	3.20	2.74	1.47	2.11
43.26	20	3.89	3.57	2.85	1.38	1.95	1.99	1.67	1.01	1.26	1.59	1.23	3.12	2.71	1.54	2.13
6.1	2-4	3.40	2.50	2.51	1.85	2.37	2.16	2.22	1.52	1.83	1.58	1.37	3.11	2.41	1.99	2.20
6.7	10-20	3.75	3.65	2.82	1.45	1.81	1.87	1.49	1.08	1.20	1.54	1.26	3.10	2.69	1.48	2.08
6.5	All hours	3.63	3.27	2.72	1.58	2.00	1.97	1.73	1.23	1.11	1.55	1.30	3.10	2.59	1.65	2.12

TABLE VIII.

Mean Abnormal Variations of Temperature, with their proper signs, arranged according to the direction of the wind at the hours of observation, for each year and for the winter and summer half years, from 1860 to 1862, the summer being considered to begin April 1st and end September 30th.

	1860.			1861.			1862.			1860 to 1862.		
	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.
N.	-4.77	+0.78	-1.57	-0.21	-1.37	-3.69	-5.57	-0.57	-3.18	-3.52	-0.30	-2.78
N. E.	+2.15	+1.49	+1.73	+1.44	-1.60	+0.08	-2.42	-0.94	-1.71	+0.19	-0.14	+0.03
E.	+6.22	-0.06	+3.01	+2.67	-0.73	+1.01	+1.28	-1.23	-0.16	+3.24	-0.75	+1.13
S. E.	+4.87	-2.48	+1.09	+3.16	-0.43	+0.98	+5.59	-0.07	+2.06	+1.43	-0.83	+1.35
S.	+5.60	+0.74	+1.58	+3.77	-0.17	+1.34	+3.08	+1.17	+1.74	+3.90	+0.73	+1.59
S. W.	+4.34	+1.89	+3.53	+5.00	+2.34	+4.07	+6.18	+3.61	+5.05	+5.11	+2.70	+4.21
W.	-0.27	-0.38	-0.31	-0.54	+0.22	-0.30	+0.57	+1.91	+1.07	-0.69	+0.56	+0.14
N. W.	-2.91	-2.34	-2.63	-3.25	-1.66	-2.42	-3.35	+0.03	-1.73	-3.22	-1.36	-2.27
Calms	-2.04	-0.96	-1.65	+0.67	-0.04	+0.16	+0.63	+0.69	+0.66	-0.23	-0.02	-0.10

TABLE IX.

Mean Abnormal Variations of Temperature, with their proper signs, arranged according to the direction of the wind at the hours of observation, in each month and in the year, for the period 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.			
													1860 to 1862			1864 to 1869
													1860 to 1862	1864 to 1869	1860 to 1869	
N.	-14.07	-7.48	-2.00	-1.12	+1.01	+1.36	-2.35	-0.10	-0.96	+0.77	-1.21	-1.65	-2.78	-2.80		
N. E.	-3.73	+4.69	-3.16	-1.86	+1.76	-0.97	-2.15	-0.69	-0.51	+2.97	+0.01	+1.03	+0.02	-1.81		
E.	+2.36	+2.51	+0.37	+0.97	-0.87	-3.04	-2.60	-0.12	+0.83	+5.10	+4.04	+6.01	+1.13	+1.73		
S. E.	+3.54	+0.65	+2.14	-0.26	+0.20	-3.20	-2.02	-0.55	+0.09	+6.69	+4.48	+6.79	+1.35	+1.79		
S.	+4.56	+5.36	+2.19	-2.50	+1.78	+1.26	-0.79	0.00	+3.39	+4.15	+3.98	+2.31	+1.56	+2.89		
S. W.	+2.49	+6.19	+3.82	+2.54	+0.91	+1.67	+2.17	+2.75	+5.27	+8.37	+1.13	+8.74	+4.21	+3.45		
W.	-2.82	+0.90	+1.78	-1.83	+0.15	+1.42	+0.65	+2.60	+0.97	+1.41	-0.65	-0.85	+0.14	-2.18		
N. W.	-6.49	-6.37	-3.38	-3.22	-0.85	+2.44	-1.94	-1.99	-3.41	-0.16	-0.25	-2.71	-2.27	-3.51		
Calms	-4.81	-1.13	+2.03	-1.38	-0.96	-0.67	+1.49	+0.23	-0.18	+2.05	+0.08	+0.81	-0.10	+1.33		

TABLE X.

Showing, for the period 1853 to 1862, the number of times in each month in which the temperature at the hour of observation differed from the normal to the extent of 15° and upwards, with the average value of the corresponding deviation.

		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Relatively high temperatures.	Number	47	83	55	15	21	35	21	12	30	53	37	46
	Ratio to mean	1.21	2.19	1.15	0.10	0.55	0.92	0.55	0.32	0.79	1.40	0.98	1.21
	Average excess	17.5	18.3	17.6	16.9	17.9	19.5	16.5	17.4	16.9	17.7	17.1	18.8
Relatively low temperatures.	Number	240	227	134	24	26	15	9	5	16	8	28	178
	Ratio to mean	3.16	2.99	1.77	0.32	0.34	0.20	0.12	0.07	0.21	0.11	0.37	2.35
	Average defect	22.9	21.5	20.4	17.3	17.7	18.0	13.5	16.6	16.6	16.3	18.8	20.9

TABLE XI.

Relative frequency of the several Winds during extraordinarily high temperatures, when the temperature at the hour of observation exceeded the normal by 15° and upwards, with the average excess of temperature for each wind, deduced from observations in the ten years 1853 to 1862.

	(1)				(2)				(3)				(4)				(5)			
	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.
N.	5	0	2	5	1.18	1.03	1.01	1.07	4.2	0.0	2.0	4.7	0.30	0.00	0.50	0.66	17.7	...	16.5	16.8
N.N.E.	3	2	2	3	0.88	0.63	0.67	0.77	3.4	3.2	3.0	3.9	0.24	0.59	0.76	0.55	16.4	20.3	15.3	15.5
N.E.	8	0	0	5	0.87	0.76	0.62	0.77	9.2	0.0	0.0	6.5	0.65	0.00	0.00	0.91	18.3	...	...	17.5
N.E.E.	16	8	1	7	0.75	1.45	0.98	1.02	21.3	5.5	1.0	6.8	1.50	1.03	0.26	0.96	16.5	17.5	15.3	18.4
E.	16	3	0	18	0.85	1.73	1.34	1.13	18.9	1.7	0.0	15.9	1.33	0.32	0.00	2.24	17.1	16.8	...	17.0
E.S.E.	7	0	1	2	0.40	0.75	0.78	0.56	17.3	0.0	1.3	3.6	1.22	0.90	0.33	0.50	19.0	...	16.8	16.2
S.E.	4	1	1	6	0.23	0.47	0.58	0.42	17.6	2.1	1.7	14.3	1.34	0.40	0.44	2.02	17.5	19.1	16.5	15.9
S.S.E.	8	3	2	1	0.24	0.42	0.72	0.48	33.9	7.2	2.8	2.1	2.38	1.34	0.70	0.29	18.8	20.4	16.1	15.6
S.	9	3	11	5	0.24	0.66	1.29	0.74	37.5	4.6	8.5	6.7	2.64	0.85	2.16	0.95	21.2	18.6	16.6	17.2
S.S.W.	16	12	13	17	0.71	1.01	1.53	1.14	22.5	11.9	8.5	14.9	1.58	2.22	2.16	2.11	18.3	16.3	16.1	17.8
S.W.	37	10	7	18	1.46	0.88	0.97	1.15	25.3	11.3	7.2	15.7	1.78	2.11	1.83	2.21	18.6	16.7	16.2	18.7
W.S.W.	19	8	5	8	2.29	0.79	0.57	1.23	8.3	10.1	8.8	6.5	0.58	1.89	2.23	0.92	18.7	17.4	16.6	17.1
W.	8	12	9	6	1.97	1.13	0.79	1.26	4.1	10.6	11.4	4.7	0.29	1.98	2.89	0.67	18.6	19.0	18.3	16.5
W.N.W.	3	11	2	5	1.31	1.45	1.06	1.37	2.3	7.6	1.9	3.7	0.16	1.41	0.48	0.52	18.4	17.1	16.5	18.4
N.W.	5	10	6	1	1.23	1.54	1.41	1.21	4.1	6.5	4.3	0.8	0.29	1.21	1.08	0.12	18.4	17.6	17.2	16.1
N.N.W.	0	2	3	6	1.40	1.51	1.57	1.25	0.0	1.3	1.9	4.8	0.00	0.25	0.48	0.68	...	16.3	17.2	17.1
Calms.	12	6	3	7	0.99	0.79	1.11	1.43	12.1	7.6	2.7	4.9	0.85	1.41	0.69	0.69	17.2	17.3	16.3	15.5

TABLE XII.

Relative frequency of the several Winds during extraordinarily low temperatures, when the temperature at the hour of observation was below the normal by 15° and upwards, with the average defect of temperature for each wind, deduced from observations in the ten years 1853 to 1862.

	(1)				(2)				(3)				(4)				(5)			
	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.	Winter.	Spring.	Summer.	Autumn.
N.	116	9	1	12	1.18	1.03	1.01	1.07	98.0	8.8	1.0	11.2	3.25	0.99	0.61	3.94	23.5	20.6	15.3	17.6
N.N.E.	56	10	1	5	0.88	0.63	0.67	0.77	63.8	15.9	1.5	6.5	2.12	1.79	0.92	2.30	23.5	21.1	15.2	15.8
N.E.	42	5	3	0	0.87	0.76	0.62	0.77	48.3	6.6	4.8	0.0	1.61	0.74	2.99	0.00	20.9	17.0	16.6	...
E.N.E.	3	8	3	2	0.75	1.45	0.98	1.02	4.0	5.5	3.1	2.0	0.13	0.62	1.90	0.69	17.6	18.4	17.2	15.6
E.	2	5	3	3	0.85	1.73	1.34	1.13	2.4	2.9	2.2	2.6	0.08	0.32	1.40	0.93	33.6	18.8	15.6	16.9
E.S.E.	0	0	0	2	0.40	0.75	0.78	0.56	0.0	0.0	0.0	3.6	0.00	0.00	0.00	1.26	...	...	...	17.5
S.E.	2	0	0	0	0.23	0.47	0.58	0.42	8.8	0.0	0.0	0.0	0.29	0.00	0.00	0.00	18.3	...	...	...
S.S.E.	0	0	0	0	0.24	0.42	0.72	0.48	0.0	0.0	0.0	0.0	0.60	0.00	0.00	0.00	...	...	...	...
S.	0	0	2	0	0.24	0.66	1.29	0.74	0.0	0.0	1.5	0.0	0.00	0.00	0.96	0.00	...	...	...	18.0
S.S.W.	0	3	0	1	0.71	1.01	1.53	1.14	0.0	3.0	0.0	0.9	0.00	0.33	0.00	0.31	...	...	...	...
S.W.*	13	0	0	0	1.46	0.88	0.97	1.15	8.9	0.0	0.0	0.0	0.29	0.00	0.00	0.00	17.9	...	...	...
W.S.W.	60	8	1	12	2.29	0.79	0.57	1.23	26.2	10.1	1.7	9.8	0.57	1.14	1.09	3.43	20.7	18.2	16.4	16.6
W.	84	13	1	0	1.97	1.13	0.79	1.26	42.7	11.5	1.3	0.0	1.42	1.29	0.79	0.00	21.3	20.4	16.0	...
W.N.W.	59	38	2	5	1.31	1.45	1.06	1.37	45.0	26.2	1.9	3.7	1.49	2.95	1.17	1.29	20.5	19.6	16.7	19.7
N.W.	62	42	6	5	1.23	1.54	1.41	1.21	50.3	27.3	4.3	4.1	1.67	3.07	2.64	1.45	21.8	19.5	18.6	23.4
N.N.W.	112	35	5	5	1.40	1.51	1.58	1.55	80.2	23.1	3.2	4.0	2.66	2.60	1.97	1.41	22.5	20.0	16.7	16.9
Calms	33	8	1	0	0.99	0.79	1.11	1.43	33.3	10.1	0.9	0.0	1.10	1.14	0.56	0.00	20.0	17.8	16.8	...

TABLE XIII.

Mean differences without regard to sign between the temperatures of the air at 6 a. m. on consecutive days, for each month in the years 1860 to 1862, the effect of annual variation being eliminated.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	8.4	9.6	5.3	5.2	4.0	3.9	4.2	4.3	6.3	5.1	5.8	6.4	5.7
1861	8.1	9.0	9.3	3.9	3.7	4.8	3.9	3.8	6.5	5.5	4.9	7.6	5.9
1862	9.4	10.2	4.7	4.1	6.3	4.7	4.1	5.4	6.4	8.2	5.9	8.9	6.5
Means													
1860 to 1862	8.6	9.6	6.4	4.4	4.7	4.5	4.1	4.5	6.4	6.3	5.5	7.6	6.1
1854 to 1859	10.0	10.0	6.7	4.9	4.2	3.9	3.7	4.2	6.2	6.8	7.2	8.3	6.3

TABLE XIV.

Mean change of temperature with its proper sign, from 6 a. m. to 6 a. m., for the period 1860 to 1862, arranged according to the daily resultant direction of the wind, the effect of annual variation being eliminated.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													1860 to 1862	1854 to 1859
N.	-3.0	-2.2	-3.4	-2.3	-0.1	-2.0	-2.3	-2.0	-3.7	-2.0	0.8	1.4	-1.9	-3.3
N.E.	+6.8	+4.1	+2.7	+3.0	+0.4	+0.3	+0.6	-1.2	+0.7	+1.3	+2.3	+4.8	+2.4	+1.5
E.	+10.6	+12.9	+5.1	+2.2	+1.1	-0.3	+1.9	+1.7	+7.3	+4.8	+1.4	+8.1	+4.0	+3.5
S.E.	*	+5.1	-4.8	+5.5	+3.0	+6.8	+2.2	+8.1	+9.9	+3.2	+11.6	+10.9	+6.3	+4.6
S.	-3.8	+7.8	+8.4	+5.8	+1.4	+4.7	+2.7	+1.1	+6.1	+14.1	+6.0	+0.6	+3.9	+3.9
S.W.	+5.3	+3.4	+5.7	+2.5	+3.5	+4.0	+2.5	+1.8	-0.2	+1.3	+0.3	+5.2	+2.7	+2.2
W.	-3.5	-2.7	-2.2	-4.4	-2.6	-2.2	-3.2	-2.3	-3.5	-3.7	-2.5	-5.0	-3.2	-2.9
N.W.	-12.4	-7.4	-4.5	-4.2	-2.6	-2.1	-2.3	-4.3	-6.6	-5.1	-3.5	-4.3	-4.5	-4.5

* No case of a S.E. resultant occurred in January.

TABLE XV.

Highest and lowest temperatures in each month, for the years 1860, 1861, and 1862.

MAXIMA.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													Temper.	Date.
1860	46.4	50.2	67.0	61.8	74.5	81.6	88.0	87.0	75.8	68.0	64.5	39.0	88.0	July 19.
1861	37.0	46.0	47.4	67.0	73.0	87.8	84.5	85.2	78.8	71.0	52.4	55.2	87.8	June 9.
1862	44.5	37.8	43.2	68.0	78.5	85.4	95.5	89.5	79.4	76.6	58.0	50.1	95.5	July 6.
Means														
1860 to 1862	42.6	44.7	52.5	65.6	75.3	84.9	89.3	87.2	78.0	71.9	58.3	48.1	90.4	
1854 to 1859	42.9	43.4	52.2	64.7	75.9	87.6	91.2	86.6	82.2	70.8	57.5	46.7	92.5	

MINIMA.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
1860	-0.8	-8.5	-12.8	19.5	32.5	49.2	43.8	46.8	28.7	28.4	13.2	-7.0	-8.5	Feb. 1.
1861	-11.2	-20.8	-5.2	23.8	28.0	41.6	47.0	47.0	37.1	29.0	23.0	5.5	-20.8	Feb. 8.
1862	-2.6	-5.2	8.0	14.5	32.4	39.4	48.2	42.8	39.0	26.2	16.2	-3.4	-5.2	Feb. 15.
Means														
1860 to 1862	-6.9	11.5	5.2	19.3	31.0	43.4	46.3	45.5	34.9	27.9	17.5	-1.6	-11.5	
1854 to 1859	-10.5	11.0	-1.8	15.9	31.0	37.2	47.5	43.8	34.9	25.4	13.6	-3.1	18.1	

TABLE XVI.
Monthly Means of the Barometric Pressure, at each of the six observation hours, from 1860 to 1862 inclusive.
 Barometer at 32° = 27 inches ± the numbers in the table.

Toronto Astronomical Time		9h	4h	10h	12h	18h	20h	Means
January	1860	2.621	2.624	2.646	2.641	2.654	2.672	2.643
"	1861	2.630	2.640	2.663	2.661	2.652	2.661	2.652
"	1862	2.639	2.713	2.746	2.746	2.724	2.738	2.727
Means		2.670	2.659	2.685	2.683	2.677	2.681	2.671
February	1860	2.600	2.603	2.651	2.633	2.638	2.646	2.632
"	1861	2.606	2.593	2.632	2.638	2.566	2.576	2.544
"	1862	2.562	2.599	2.607	2.599	2.620	2.629	2.608
Means		2.575	2.575	2.597	2.597	2.608	2.617	2.595
March	1860	2.488	2.488	2.528	2.519	2.516	2.527	2.511
"	1861	2.603	2.596	2.522	2.616	2.636	2.652	2.621
"	1862	2.485	2.485	2.522	2.517	2.500	2.512	2.504
Means		2.552	2.552	2.557	2.551	2.551	2.561	2.545
April	1860	2.563	2.552	2.578	2.581	2.589	2.602	2.578
"	1861	2.589	2.584	2.554	2.552	2.590	2.598	2.564
"	1862	2.71	2.708	2.729	2.729	2.729	2.743	2.726
Means		2.611	2.599	2.601	2.621	2.636	2.648	2.623
May	1860	2.559	2.545	2.561	2.561	2.580	2.589	2.566
"	1861	2.589	2.584	2.558	2.555	2.584	2.555	2.545
"	1862	2.581	2.564	2.585	2.584	2.604	2.619	2.590
Means		2.560	2.548	2.568	2.567	2.573	2.577	2.567
June	1860	2.487	2.477	2.505	2.504	2.502	2.513	2.498
"	1861	2.500	2.509	2.502	2.501	2.507	2.504	2.500
"	1862	2.506	2.501	2.506	2.506	2.508	2.504	2.504
Means		2.536	2.528	2.541	2.540	2.537	2.537	2.534
Toronto Astronomical Time		9h	4h	10h	12h	18h	20h	Means
July	1860	2.655	2.650	2.674	2.676	2.687	2.691	2.664
"	1861	2.635	2.629	2.659	2.658	2.664	2.663	2.657
"	1862	2.640	2.627	2.649	2.653	2.652	2.663	2.647
Means		2.644	2.635	2.661	2.662	2.664	2.667	2.654
August	1860	2.571	2.560	2.580	2.576	2.586	2.607	2.582
"	1861	2.644	2.634	2.657	2.657	2.665	2.669	2.653
"	1862	2.606	2.591	2.617	2.618	2.629	2.635	2.616
Means		2.607	2.595	2.618	2.618	2.627	2.637	2.617
September	1860	2.651	2.646	2.662	2.669	2.674	2.683	2.672
"	1861	2.657	2.657	2.671	2.670	2.678	2.692	2.668
"	1862	2.660	2.660	2.669	2.668	2.681	2.685	2.683
Means		2.654	2.653	2.664	2.666	2.678	2.689	2.675
October	1860	2.671	2.656	2.662	2.688	2.659	2.686	2.671
"	1861	2.604	2.602	2.607	2.604	2.646	2.653	2.619
"	1862	2.592	2.594	2.621	2.626	2.633	2.646	2.619
Means		2.616	2.617	2.640	2.639	2.646	2.660	2.636
November	1860	2.507	2.515	2.525	2.515	2.531	2.531	2.523
"	1861	2.535	2.533	2.544	2.536	2.533	2.540	2.537
"	1862	2.612	2.621	2.653	2.654	2.652	2.647	2.636
Means		2.548	2.556	2.574	2.568	2.566	2.580	2.565
December	1860	2.658	2.671	2.677	2.674	2.673	2.666	2.667
"	1861	2.737	2.738	2.745	2.744	2.733	2.730	2.746
"	1862	2.662	2.670	2.690	2.685	2.671	2.689	2.678
Means		2.682	2.683	2.704	2.701	2.692	2.718	2.697

TABLE XVII.

Monthly and annual means of the Barometric Pressure furnished by six daily observations, from 1860 to 1862.

Barometer at temperature 32° = 27 inches + the numbers in the table.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	2.643	2.632	2.511	2.578	2.566	2.498	2.564	2.582	2.673	2.671	2.523	2.667	2.592
1861	2.652	2.544	2.621	2.561	2.545	2.570	2.551	2.652	2.608	2.619	2.537	2.746	2.601
1862	2.727	2.608	2.504	2.726	2.590	2.564	2.547	2.619	2.68	2.619	2.636	2.678	2.625
Means 1860 to 1862	2.674	2.595	2.545	2.623	2.567	2.544	2.554	2.617	2.655	2.636	2.565	2.697	2.606
Means 1854 to 1859	2.667	2.639	2.538	2.572	2.596	2.544	2.614	2.606	2.675	2.653	2.595	2.670	2.614

TABLE XVIII.

Monthly means of the Barometric Pressure at each of the six observation hours, for the period 1860 to 1862.

Barometer at temperature 32° = 27 inches + the numbers in the table.

Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
2 ^h	2.650	2.575	2.525	2.611	2.560	2.536	2.544	2.607	2.640	2.616	2.538	2.682	2.591
4	2.639	2.575	2.523	2.599	2.548	2.523	2.535	2.595	2.633	2.617	2.556	2.693	2.588
10	2.685	2.597	2.557	2.620	2.568	2.541	2.561	2.618	2.664	2.640	2.574	2.704	2.611
12	2.683	2.597	2.551	2.621	2.567	2.540	2.562	2.620	2.666	2.639	2.568	2.701	2.610
18	2.677	2.608	2.551	2.636	2.573	2.557	2.554	2.627	2.658	2.646	2.566	2.692	2.610
20	2.691	2.617	2.564	2.648	2.587	2.567	2.567	2.637	2.669	2.660	2.580	2.708	2.625

TABLE XIX.

Monthly mean abnormal variations of the Barometer without regard to sign, for each month of the years 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.207	0.238	0.215	0.207	0.139	0.185	0.124	0.122	0.143	0.167	0.231	0.334	0.193
1861	.206	.292	.222	.194	.214	.118	.109	.103	.163	.197	.195	.227	0.184
1862	.229	.191	.192	.225	.112	.139	.135	.118	.125	.153	.204	.212	0.170
Means 1860 to 1862	0.211	0.230	0.210	0.209	0	0.147	0.123	0.114	0.144	0.172	0.210	0.257	0.182
Means 1854 to 1859	0.219	0.215	0.223	0.196	0.151	0	.121	0.119	0.162	0.183	0.228	0.225	0.183
Means 1854 to 1862	0.237	0.220	0.219	0.200	0.152	0.133	0.122	0.117	0.156	0.179	0.222	0.236	0.183

Means 2.662 2.603 2.574 2.704 2.701 2.632 2.708 2.697

Means 2.536 2.523 2.541 2.549 2.597 2.567 2.544

TABLE XX.

Monthly Mean Abnormal Variations of the Barometer, without regard to sign, at each of the six observation hours, for the period 1860 to 1862.

Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													1860 to 1862.	1864 to 1869.
2h	0.220	0.228	0.215	0.210	0.155	0.149	0.125	0.113	0.146	0.177	0.207	0.265	0.184	0.187
4	.217	.224	.210	.211	.153	.143	.117	.110	.140	.173	.201	.260	.180	.182
10	.210	.221	.206	.210	.152	.135	.110	.112	.134	.170	.206	.265	.178	.175
12	.205	.225	.207	.212	.151	.138	.112	.115	.137	.172	.212	.260	.179	.177
18	.215	.240	.206	.205	.159	.160	.135	.118	.161	.168	.217	.245	.185	.188
20	.218	.211	.213	.205	.159	.159	.137	.117	.165	.173	.218	.248	.187	.191

TABLE XXI.

Probable Variability of the Monthly Means of the Barometer at each hour, in a single year, derived from observations in the nine years, 1854 to 1862.

Toronto Astronomical Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
2h	.0267	.0550	.0453	.0492	.0304	.0393	.0245	.0294	.0300	.0343	.0540	.0330	.0376
4	.0251	.0521	.0452	.0487	.0287	.0388	.0229	.0280	.0280	.0330	.0533	.0325	.0364
10	.0271	.0473	.0455	.0471	.0246	.0391	.0214	.0278	.0271	.0356	.0539	.0296	.0355
12	.0289	.0466	.0455	.0480	.0254	.0388	.0214	.0279	.0278	.0372	.0553	.0299	.0360
18	.0337	.0514	.0453	.0490	.0336	.0408	.0307	.0296	.0316	.0315	.0591	.0374	.0395
20	.0325	.0531	.0461	.0499	.0335	.0420	.0283	.0294	.0315	.0323	.0568	.0389	.0395
Means	.0291	.0508	.0455	.0486	.0294	.0398	.0249	.0287	.0293	.0340	.0554	.0385	.0374

TABLE XXII.

Mean Abnormal Variations of the Barometer, with their proper signs, arranged according to the direction of the wind, for each year and for the winter and summer half years, from 1860 to 1862, the summer being considered to begin April 1st, and end September 30th.

	1860.			1861.			1862.			Means 1860-1862.		
	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.
N.	+0.155	+0.008	+0.062	+0.063	+0.021	+0.043	+0.136	+0.066	+0.103	+0.114	+0.032	+0.071
N.E.	+ .031	- .041	- .013	- .005	- .031	- .016	+ .075	+ .098	+ .086	+ .035	+ .006	+ .020
E.	+ .029	- .012	+ .008	- .012	+ .004	+ .001	+ .034	+ .041	+ .038	+ .019	+ .015	+ .017
S.E.	+ .050	+ .055	+ .043	+ .042	+ .027	+ .033	- .057	+ .090	+ .035	+ .010	+ .055	+ .037
S.	- .055	+ .043	+ .012	- .029	+ .035	+ .014	- .033	+ .018	+ .003	- .037	+ .026	+ .009
S.W.	- .171	- .158	- .147	- .063	- .092	- .073	- .128	- .075	- .105	- .119	- .104	- .114
W.	- .069	- .131	- .083	- .037	- .175	- .082	- .056	- .042	- .051	- .055	- .115	- .076
N.W.	- .009	- .017	- .013	+ .031	- .019	- .011	+ .027	- .010	+ .003	+ .011	- .024	- .005
Calms.	+ .012	+ .018	+ .033	- .015	+ .030	+ .018	+ .062	+ .049	+ .056	+ .027	+ .032	+ .030

TABLE XXIII.

Mean Abnormal Variations of the Barometer, with their proper signs, arranged according to the direction of the wind, in each month and in the year, for the period 1860-1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													1860 to 1862.	1863 to 1869.
N.	+0.152	+0.105	+0.018	-0.031	+0.064	+0.021	-0.021	+0.048	+0.043	+0.132	+0.021	-0.214	+0.071	+0.060
N.E.	+0.351	-0.109	+0.024	+0.110	-0.065	-0.062	-0.056	-0.031	+0.094	+0.099	+0.060	+0.110	+0.020	+0.052
E.	+0.090	-0.229	+0.018	+0.044	-0.051	+0.028	-0.079	+0.015	+0.042	+0.051	+0.104	+0.070	+0.017	+0.016
E.S.	-0.148	-0.084	+0.010	+0.108	+0.047	+0.084	-0.038	-0.044	+0.085	+0.069	+0.057	+0.149	+0.017	+0.041
S.	-0.126	-0.107	+0.135	-0.023	+0.070	+0.042	+0.061	+0.019	+0.027	+0.034	-0.151	+0.150	+0.068	+0.018
S.W.	-0.048	-0.114	-0.207	-0.118	-0.042	-0.120	-0.111	-0.082	-0.129	-0.108	-0.203	-0.028	-0.114	-0.115
W.	+0.076	+0.067	-0.144	-0.065	-0.181	-0.174	-0.114	-0.169	-0.060	-0.065	-0.07	-0.044	+0.070	-0.061
N.W.	+0.083	+0.027	+0.028	+0.028	-0.018	+0.097	+0.040	+0.025	-0.065	+0.062	+0.056	+0.060	-0.065	-0.017
Calms	+0.073	+0.140	+0.012	+0.011	+0.011	+0.021	-0.017	+0.051	+0.039	+0.020	-0.109	+0.138	+0.080	+0.070

TABLE XXIV.

Mean Differences without regard to sign between the barometric pressures at 6 a.m. on consecutive days, for each month in the years 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.255	0.248	0.174	0.223	0.123	0.135	0.188	0.144	0.164	0.144	0.258	0.247	0.189
1861	0.254	0.260	0.330	0.161	0.20	0.147	0.108	0.081	0.175	0.221	0.115	0.205	0.208
1862	0.57	0.589	0.200	0.201	0.166	0.162	0.142	0.160	0.160	0.211	0.189	0.255	0.201
Means 1860 to 1862	0.282	0.280	0.235	0.195	0.160	0.148	0.144	0.120	0.163	0.192	0.220	0.249	0.199
Means 1854 to 1859	0.280	0.253	0.257	0.217	0.160	0.126	0.110	0.128	0.151	0.168	0.248	0.273	0.198
Means 1854 to 1862	0.281	0.265	0.250	0.210	0.160	0.133	0.121	0.125	0.155	0.176	0.239	0.265	0.198

TABLE XXV.

Mean change in the Barometer with its proper sign, from 6 a.m. to 6 a.m., for the period 1860 to 1862, arranged according to the daily resultant direction of the wind.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													1860 to 1862.	1863 to 1869.
N.	+0.107	+0.093	+0.194	+0.105	-0.116	+0.127	+0.106	+0.031	+0.062	-0.066	+0.068	+0.067	+0.076	+0.097
N.E.	-0.207	-0.347	-0.179	-0.120	-0.074	+0.061	-0.081	+0.016	-0.055	-0.090	-0.172	-0.233	-0.137	-0.162
E.	-0.548	-0.352	-0.267	-0.151	-0.123	-0.135	-0.097	-0.071	-0.237	-0.197	-0.254	-0.246	-0.196	-0.170
E.S.	+0.054	-0.305	-0.312	-0.118	-0.091	-0.282	-0.072	-0.199	-0.119	+0.042	-0.405	-0.296	-0.178	-0.197
S.	+0.054	-0.302	-0.443	-0.110	-0.017	-0.150	-0.080	-0.079	-0.097	-0.214	-0.284	-0.170	-0.130	-0.069
S.W.	-0.094	-0.166	-0.120	+0.018	-0.067	-0.148	-0.080	-0.092	-0.021	-0.035	-0.060	-0.201	-0.089	-0.038
W.	+0.102	+0.170	+0.112	+0.213	+0.156	+0.050	+0.101	+0.048	+0.180	+0.119	+0.228	+0.134	+0.142	+0.144
N.W.	+0.294	+0.350	+0.183	+0.148	+0.154	+0.139	+0.135	+0.102	+0.156	+0.248	+0.160	+0.235	+0.183	+0.170

* No case of a S E resultant occurred in January.

TABLE XXVI.

Highest and lowest Readings of the Barometer in each month, for the years 1860, 1861, and 1862.

Barometer at 32° = 27 inches + the numbers in the Table.

HIGHEST.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													Barometer.	Date.
1860	3.142	3.156	2.954	3.265	2.846	2.879	2.839	2.943	3.170	2.982	2.959	3.257	3.207	December 14.
1861	3.330	3.144	3.260	3.129	2.955	2.910	2.839	2.912	3.104	3.054	3.000	3.182	3.300	January 22.
1862	3.300	3.158	2.828	3.117	2.942	3.109	2.957	2.977	3.031	3.039	3.409	3.453	3.469	November 15.
Means	3.267	3.139	2.987	3.107	2.928	2.920	2.875	2.977	3.102	3.025	3.143	3.201	3.358	

LOWEST.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													Barometer.	Date.
1860	2.155	1.920	2.044	1.800	2.088	1.999	2.157	2.211	2.233	2.019	1.844	1.838	1.838	December 20.
1861	2.006	1.979	2.034	2.055	1.644	2.170	2.260	2.382	2.076	1.998	2.005	2.171	1.644	May 6.
1862	1.965	2.011	1.865	2.076	2.238	2.163	2.196	2.326	2.107	2.047	2.112	2.165	1.865	March 3.
Means	2.042	1.970	1.961	2.009	1.900	2.084	2.207	2.306	2.139	2.021	1.991	2.038	1.762	

TABLE XXVII.
Monthly means of the Pressure of Dry Air, at each of the six observation hours, from 1860 to 1862 inclusive.
 Pressure of Dry Air at 32° = 27 inches + the numbers in the table.

Tempero. Astronomical Time.	Tempero.						Means.
	2 ^h	4 ^h	10 ^h	12 ^h	18 ^h	20 ^h	
January ..	2.566	2.510	2.522	2.532	2.548	2.569	2.533
" ..	1.861	2.521	2.561	2.562	2.554	2.567	2.549
" ..	1.862	2.588	2.604	2.645	2.624	2.637	2.624
Means	2.528	2.548	2.579	2.580	2.575	2.591	2.569
February ..	2.488	2.484	2.541	2.544	2.528	2.526	2.520
" ..	1.861	2.394	2.388	2.406	2.441	2.453	2.414
" ..	1.862	2.483	2.489	2.492	2.513	2.523	2.501
Means	2.455	2.454	2.480	2.481	2.496	2.505	2.478
March ...	2.320	2.326	2.384	2.382	2.380	2.385	2.363
" ..	1.861	2.472	2.465	2.490	2.513	2.528	2.493
" ..	1.862	2.343	2.346	2.387	2.389	2.381	2.372
Means	2.378	2.379	2.421	2.420	2.425	2.433	2.400
April	2.365	2.359	2.388	2.399	2.419	2.427	2.395
" ..	1.861	2.337	2.332	2.350	2.371	2.410	2.365
" ..	1.862	2.319	2.318	2.351	2.350	2.350	2.312
Means	2.407	2.403	2.430	2.433	2.461	2.466	2.433
May	2.187	2.180	2.230	2.247	2.265	2.258	2.258
" ..	1.861	2.296	2.292	2.333	2.334	2.313	2.313
" ..	1.862	2.302	2.303	2.338	2.346	2.366	2.337
Means	2.262	2.258	2.300	2.300	2.314	2.312	2.293
June	2.053	2.086	2.109	2.120	2.103	2.085	2.084
" ..	1.861	2.157	2.162	2.205	2.234	2.206	2.192
" ..	1.862	2.178	2.164	2.227	2.235	2.245	2.219
Means	2.129	2.121	2.176	2.187	2.200	2.179	2.165
Astronomical Time.	2 ^h	4 ^h	10 ^h	12 ^h	18 ^h	20 ^h	Means.
July	1.860	2.114	2.130	2.155	2.167	2.137	2.117
" ..	1.861	2.025	2.027	2.110	2.130	2.123	2.068
" ..	1.862	2.039	2.037	2.058	2.101	2.098	2.075
Means	2.059	2.065	2.121	2.129	2.119	2.097	2.090
August	1.860	2.069	2.075	2.130	2.140	2.165	2.119
" ..	1.861	2.092	2.093	2.183	2.200	2.205	2.158
" ..	1.862	2.054	2.043	2.133	2.135	2.149	2.116
Means	2.072	2.071	2.150	2.158	2.173	2.142	2.128
September ..	1.860	2.281	2.291	2.356	2.367	2.362	2.323
" ..	1.861	2.162	2.156	2.292	2.234	2.242	2.296
" ..	1.862	2.217	2.218	2.286	2.304	2.291	2.272
Means	2.220	2.222	2.291	2.292	2.298	2.277	2.290
October ...	1.860	2.366	2.371	2.422	2.425	2.398	2.415
" ..	1.861	2.292	2.300	2.369	2.314	2.381	2.365
" ..	1.862	2.264	2.276	2.319	2.330	2.358	2.319
Means	2.307	2.316	2.350	2.356	2.379	2.382	2.349
November ..	1.860	2.701	2.713	2.729	2.728	2.729	2.749
" ..	1.861	2.546	2.554	2.569	2.563	2.532	2.578
" ..	1.862	2.429	2.446	2.484	2.480	2.464	2.461
Means	2.559	2.571	2.595	2.592	2.585	2.599	2.581
December ...	1.860	2.540	2.556	2.563	2.559	2.537	2.551
" ..	1.861	2.370	2.379	2.589	2.596	2.605	2.593
" ..	1.862	2.313	2.324	2.530	2.547	2.528	2.554
Means	2.541	2.553	2.567	2.567	2.557	2.579	2.560

TABLE XXVIII.

Monthly and annual means of the Pressure of Dry Air, furnished by six daily observations, from 1860 to 1862.

Pressure of Dry Air at 32° — 27 inches + the numbers in the table.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	2.533	2.520	2.363	2.393	2.228	2.084	2.137	2.119	2.532	2.399	2.327	2.551	2.334
1861	2.540	2.414	2.493	2.365	2.313	2.102	2.084	2.158	2.200	2.327	2.350	2.505	2.338
1862	2.624	2.501	2.372	2.542	2.337	2.219	2.075	2.106	2.265	2.319	2.465	2.536	2.303
Means 1860 to 1862	2.569	2.478	2.409	2.433	2.293	2.165	2.099	2.128	2.269	2.349	2.384	2.500	2.345
Means 1854 to 1859	2.556	2.536	2.405	2.388	2.331	2.137	2.107	2.148	2.292	2.406	2.419	2.551	2.356

TABLE XXIX.

Monthly means of the Pressure of Dry Air at each of the six observation hours, for the period 1860 to 1862.

Pressure of Dry Air at 32° = 27 inches + the numbers in the table.

From to Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
2 ^h	2.538	2.455	2.378	2.407	2.262	2.129	2.059	2.072	2.220	2.307	2.359	2.541	2.311
4	2.548	2.454	2.379	2.403	2.258	2.121	2.065	2.071	2.222	2.316	2.371	2.553	2.313
10	2.579	2.480	2.421	2.430	2.300	2.176	2.121	2.150	2.291	2.350	2.395	2.567	2.355
12	2.589	2.481	2.420	2.433	2.309	2.187	2.129	2.158	2.302	2.356	2.392	2.567	2.359
18	2.575	2.496	2.425	2.461	2.314	2.200	2.119	2.173	2.298	2.379	2.385	2.557	2.365
20	2.591	2.505	2.433	2.466	2.312	2.179	2.097	2.142	2.277	2.382	2.399	2.579	2.364

TABLE XXX.

Monthly mean abnormal variations of the Pressure of Dry Air without regard to sign, for each month of the years 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.238	0.258	0.224	0.229	0.178	0.207	0.182	0.183	0.201	0.194	0.235	0.351	0.223
1861	.226	.283	.257	.227	.251	.180	.164	.174	.210	.235	.200	.259	.222
1862	.256	.211	.205	.231	.129	.192	.155	.215	.193	.216	.218	.237	.205
Means 1860 to 1862	0.240	0.251	0.229	0.229	0.186	0.193	0.167	0.191	0.201	0.215	0.218	0.282	0.217

TABLE XXXI.

Monthly Mean Abnormal Variations of the Pressure of Dry Air, without regard to sign, at each of the six observation hours, for the period 1860 to 1862.

Toronto Astronomical Time	January	February	March	April	May	June	July	August	September	October	November	December	Year.
28	0.246	0.240	0.236	0.228	0.194	0.203	0.164	0.194	0.205	0.222	0.212	0.291	0.220
4	.242	.240	.232	.241	.193	.196	.161	.192	.200	.214	.207	.289	.217
10	.232	.245	.220	.232	.186	.173	.155	.194	.191	.214	.214	.294	.213
12	.229	.250	.221	.230	.187	.177	.160	.196	.190	.218	.217	.287	.213
18	.244	.267	.230	.221	.182	.204	.180	.186	.210	.212	.227	.264	.219
20	.247	.263	.232	.221	.176	.208	.179	.183	.212	.212	.229	.269	.219

TABLE XXXII.

Mean Abnormal Variations of the Pressure of Dry Air, with their proper signs, arranged according to the direction of the wind, for each year and for the winter and summer half years, from 1860 to 1862, the summer being considered to begin April 1st, and end September 30th.

	1860.			1861.			1862.			Mean 1860-1862.		
	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.
N.	+0.157	+0.028	+0.083	+0.184	+0.064	+0.073	+0.161	+0.118	+0.141	+0.136	+0.068	+0.101
N.E.	+ .098	- .068	- .035	- .029	- .020	- .025	+ .089	+ .128	+ .108	+ .025	+ .008	+ .016
E.	- .018	- .004	- .011	- .028	+ .012	- .008	+ .009	+ .011	+ .029	- .012	+ .021	+ .005
S.E.	- .017	+ .086	+ .036	+ .017	+ .029	+ .024	- .103	+ .089	+ .017	- .028	+ .004	+ .026
S.	- .080	+ .021	+ .004	- .046	+ .025	+ .002	- .017	+ .001	- .014	- .051	+ .015	- .003
W.	- .182	- .180	- .183	- .094	- .141	- .107	- .481	- .143	- .164	- .149	- .152	- .150
N.W.	- .053	- .107	- .072	- .025	- .165	- .071	- .049	- .038	- .045	- .043	- .100	- .063
Calms.	+ .025	+ .055	+ .040	+ .059	- .006	+ .025	+ .048	+ .036	+ .042	+ .042	+ .032	+ .036
	+ .014	+ .030	+ .039	- .026	+ .045	+ .026	+ .047	+ .058	+ .052	+ .019	+ .016	+ .035

TABLE XXXIII.

Mean Abnormal Variations of the Pressure of Dry Air, with their proper signs, arranged according to the direction of the wind in each month and in the year, for the period 1860 to 1862.

	January	February	March	April	May	June	July	August	September	October	November	December	Year.
N.	+0.157	+0.124	+0.042	+0.061	+0.070	+0.085	+0.043	+0.072	+0.075	+0.129	+0.037	+0.247	+0.101
N.E.	+ .098	- .145	+ .046	+ .036	- .048	+ .040	- .031	- .023	+ .069	+ .068	+ .045	+ .101	+ .016
E.	+ .012	- .045	- .098	+ .045	- .037	+ .099	- .025	- .003	+ .007	- .078	+ .060	+ .032	+ .005
S.E.	- .176	- .102	+ .027	+ .190	+ .053	+ .103	- .039	- .084	+ .088	- .073	+ .004	+ .106	+ .026
S.	- .104	- .221	+ .152	+ .032	+ .058	+ .080	+ .006	- .005	- .037	+ .010	- .158	- .111	- .003
S.W.	- .069	- .145	- .206	- .116	- .052	- .165	- .157	- .144	- .226	- .265	- .484	- .083	- .150
W.	+ .087	+ .094	- .121	- .043	- .178	- .098	- .107	- .122	- .054	- .160	- .079	- .034	- .063
N.W.	+ .115	+ .056	+ .021	+ .071	+ .017	- .021	+ .030	+ .041	+ .070	+ .023	- .011	+ .083	+ .036
Calms.	+ .087	+ .147	+ .019	+ .048	+ .067	+ .065	- .017	+ .050	+ .068	- .067	- .107	+ .135	+ .035

TABLE XXXIV.

Mean Differences, without regard to sign, between the Pressures of Dry Air at 6 a. m. on consecutive days, for each month in the years 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.283	0.283	0.192	0.261	0.161	0.211	0.285	0.186	0.227	0.178	0.266	0.263	0.233
1861	.275	.354	.366	.183	.251	.218	.149	.135	.236	.257	.240	.302	.247
1862	.371	.326	.216	.227	.190	.227	.192	.262	.240	.276	.215	.261	.250
Means 1860 to 1862	0.310	0.321	0.258	0.221	0.201	0.219	0.209	0.194	0.234	0.237	0.240	0.275	0.243

TABLE XXXV.

Mean Changes in the Pressure of Dry Air, with their proper signs, from 6 a. m. to 6 a. m., for the period 1860 to 1862, arranged according to the daily resultant direction of the wind.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
N.	+0.119	+0.100	+0.215	+0.132	-0.112	+0.111	+0.122	-0.033	+0.161	+0.023	+0.106	+0.072	+0.006
N.E.	-.263	-.368	-.190	-.115	-.093	+.070	-.089	+.045	-.068	-.111	-.194	-.258	-.152
E.	-.598	-.413	-.301	-.178	-.132	-.155	-.149	-.115	-.345	-.253	-.276	-.305	-.240
S.E.	*	-.228	-.284	-.154	-.122	-.410	-.171	-.330	-.288	+.008	-.495	-.261	-.264
S.	+.032	-.404	-.478	-.171	+.008	-.279	-.160	-.110	-.178	-.450	-.364	-.170	-.189
S.W.	-.122	-.110	-.151	+.018	-.116	-.222	-.145	-.112	-.021	-.019	-.065	-.228	-.109
W.	+.211	+.189	+.133	+.245	+.201	+.098	+.224	+.087	+.219	+.169	+.251	+.166	+.180
N.W.	+.282	+.354	+.195	+.175	+.181	+.202	+.195	+.284	+.267	+.293	+.135	+.252	+.227

* No case of a S. E. resultant occurred in January.

TABLE XXXVI.

Highest and Lowest Pressures of Dry Air in each month, for 1860, 1861, and 1862.

Pressure of Dry Air at 32° = 27 inches + the numbers in the table.

HIGHEST.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													Pressures.	Dates.
1860	3.110	3.070	2.787	3.160	2.685	2.550	2.551	2.561	3.025	2.788	2.886	3.222	3.222	Dec. 14.
1861	3.265	3.103	3.169	2.963	2.772	2.590	2.472	2.600	2.819	2.886	2.861	3.127	3.265	Jan. 23.
1862	3.217	3.090	2.755	3.014	2.735	2.878	2.483	2.706	2.786	2.873	3.356	3.371	3.371	Dec. 20.
Means...	3.197	3.088	2.904	3.046	2.791	2.673	2.502	2.622	2.877	2.819	3.031	3.240	3.286	

LOWEST.

1860	1.985	1.783	1.617	1.689	1.665	1.169	1.490	1.600	1.865	1.684	1.621	1.643	1.469	June 4.
1861	1.832	1.826	1.833	1.710	1.333	1.500	1.611	1.611	1.740	1.734	1.773	1.825	1.333	May 6.
1862	1.721	1.841	1.616	1.835	1.805	1.637	1.550	1.601	1.441	1.719	1.982	1.858	1.441	Sept. 1.
Means...	1.846	1.817	1.703	1.743	1.601	1.535	1.530	1.605	1.682	1.712	1.792	1.709	1.414	

TABLE XXXVII.
Monthly Means of the Pressure of Vapour, at each of the six observation hours, from 1869 to 1892 inclusive.

Toronto Astronomical Times		2 ^h	4 ^h	10 ^h	12 ^h	18 ^h	20 ^h	Means.
January ..	1860	0.115	0.114	0.114	0.109	0.106	0.104	0.110
"	1861	.109	.109	.102	.999	.998	.997	.102
"	1862	.110	.109	.101	.999	.100	.100	.103
	Means	0.111	0.111	0.106	0.102	0.101	0.100	0.105
February ..	1860	0.116	0.119	0.110	0.109	0.110	0.110	0.112
"	1861	.136	.135	.133	.132	.122	.123	.130
"	1862	.109	.109	.107	.108	.105	.104	.107
	Means	0.129	0.121	0.117	0.116	0.112	0.112	0.116
March	1860	0.168	0.162	0.144	0.138	0.136	0.142	0.148
"	1861	.131	.131	.130	.126	.123	.123	.127
"	1862	.142	.139	.134	.128	.129	.127	.132
	Means	0.147	0.144	0.136	0.131	0.126	0.131	0.136
April	1860	0.198	0.193	0.191	0.182	0.170	0.175	0.185
"	1861	.216	.205	.204	.201	.179	.187	.199
"	1862	.199	.190	.177	.179	.177	.183	.184
	Means	0.204	0.196	0.191	0.187	0.175	0.182	0.189
May	1860	0.371	0.365	0.331	0.314	0.315	0.331	0.338
"	1861	.243	.241	.225	.221	.222	.240	.232
"	1862	.279	.261	.246	.238	.239	.253	.253
	Means	0.298	0.289	0.267	0.258	0.259	0.275	0.274
June	1860	0.433	0.441	0.397	0.384	0.399	0.428	0.414
"	1861	.409	.388	.370	.356	.354	.388	.377
"	1862	.378	.377	.328	.321	.320	.349	.346
	Means	0.407	0.402	0.365	0.354	0.358	0.388	0.379
Toronto Astronomical Times		2 ^h	4 ^h	10 ^h	12 ^h	18 ^h	20 ^h	Means.
July	1860	0.442	0.420	0.419	0.169	0.420	0.454	0.427
"	1861	.511	.503	.449	.439	.431	.468	.467
"	1862	.501	.499	.452	.452	.455	.486	.473
	Means	0.485	0.471	0.440	0.433	0.435	0.469	0.456
August	1860	0.502	0.485	0.450	0.441	0.431	0.470	0.463
"	1861	.552	.538	.472	.461	.450	.500	.495
"	1862	.552	.548	.482	.483	.479	.515	.510
	Means	0.535	0.524	0.468	0.462	0.453	0.495	0.489
September ..	1860	0.369	0.355	0.336	0.327	0.313	0.350	0.342
"	1861	.456	.430	.379	.376	.376	.401	.400
"	1862	.456	.447	.404	.389	.390	.453	.418
	Means	0.420	0.411	0.373	0.364	0.360	0.391	0.387
October ..	1860	0.286	0.285	0.269	0.263	0.262	0.265	0.272
"	1861	.312	.302	.298	.290	.264	.288	.292
"	1862	.318	.302	.292	.296	.275	.282	.299
	Means	0.309	0.302	0.290	0.283	0.267	0.278	0.288
November ..	1860	0.206	0.202	0.193	0.187	0.192	0.193	0.195
"	1861	.180	.179	.175	.172	.182	.181	.178
"	1862	.182	.175	.169	.167	.167	.166	.171
	Means	0.189	0.185	0.179	0.175	0.180	0.180	0.181
December ..	1860	0.118	0.116	0.114	0.114	0.116	0.113	0.115
"	1861	.157	.159	.156	.149	.148	.159	.151
"	1862	.149	.146	.140	.137	.142	.156	.142
	Means	0.141	0.140	0.137	0.133	0.135	0.129	0.136

TABLE XXXVIII.

Monthly and annual means of the Pressure of Vapour furnished by six daily observations, from 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.110	0.112	0.148	0.185	0.338	0.414	0.427	0.463	0.342	0.272	0.195	0.115	0.260
1861	.102	.130	.127	.199	.232	.377	.467	.495	.400	.292	.178	.151	.262
1862	.103	.107	.132	.184	.253	.346	.473	.510	.418	.300	.171	.142	.262
Means 1860 to 1862	0.105	0.116	0.136	0.189	0.274	0.379	0.456	0.480	0.387	0.288	0.181	0.136	0.261
Means 1854 to 1859	0.112	0.104	0.133	0.184	0.266	0.407	0.507	0.458	0.384	0.247	0.176	0.120	0.258

TABLE XXXIX.

Monthly means of the Pressure of Vapour at each of the six observation hours, for the period 1860 to 1862.

Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
2h	0.111	0.120	0.147	0.204	0.298	0.407	0.485	0.535	0.420	0.309	0.189	0.141	0.280
4	.111	.121	.144	.196	.289	.402	.471	.524	.411	.302	.185	.140	.275
10	.108	.117	.136	.191	.267	.365	.440	.468	.373	.290	.179	.137	.256
12	.102	.116	.131	.187	.258	.354	.433	.462	.364	.283	.175	.133	.250
18	.101	.112	.126	.175	.259	.358	.435	.453	.360	.267	.180	.135	.247
20	.100	.112	.131	.182	.275	.388	.469	.495	.391	.278	.180	.129	.261

TABLE XL.

Monthly mean abnormal variations of the Pressure of Vapour, without regard to sign, for each month of the years 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.043	0.051	0.046	0.048	0.081	0.078	0.091	0.094	0.111	0.067	0.059	0.035	0.067
1861	.037	.041	.047	.054	.072	.087	.091	.090	.078	.076	.037	.060	.064
1862	.039	.033	.028	.056	.062	.033	.079	.113	.096	.092	.041	.046	.064
Means 1860 to 1862	0.040	0.042	0.040	0.053	0.072	0.083	0.087	0.093	0.095	0.073	0.046	0.047	0.065

Means 0.136 | 0.129 | 0.135 | 0.133 | 0.137 | 0.140 | 0.141 | 0.379 | 0.388 | 0.354 | 0.365 | 0.402 | 0.407 | 0.379

TABLE XII.

Monthly mean abnormal variations of the Pressure of Vapour, without regard to sign, at each of the six observation hours, for the period 1860 to 1862.

Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
2 ^h	0.010	0.040	0.043	0.062	0.085	0.093	0.092	0.106	0.110	0.082	0.017	0.019	0.071
4	.038	.011	.043	.051	.087	.092	.097	.108	.106	.078	.045	.048	.070
10	.040	.044	.036	.056	.065	.076	.081	.096	.094	.081	.016	.049	.064
12	.041	.041	.035	.049	.066	.073	.083	.098	.089	.081	.045	.047	.063
18	.041	.043	.042	.040	.063	.078	.084	.091	.079	.074	.045	.047	.061
20	.039	.041	.042	.049	.065	.083	.083	.091	.093	.073	.044	.043	.062

TABLE XIII.

Mean abnormal variations of the Pressure of Vapour, with their proper signs, arranged according to the direction of the wind, for each year and for the winter and summer half years, from 1860 to 1862, the summer being considered to begin April 1st, and end September 30th.

	1860.			1861.			1862.			Mean 1860 to 1862.		
	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.
N.	-0.020	-0.011	-0.015	-0.019	-0.042	-0.031	-0.025	-0.052	-0.038	-0.022	-0.033	-0.028
N.E.	+ .031	+ .031	+ .031	+ .028	- .010	+ .011	- .013	- .030	- .021	+ .013	.000	+ .006
E.	+ .056	+ .001	+ .027	+ .032	- .008	+ .012	+ .025	- .004	+ .008	+ .036	- .004	+ .015
S.E.	+ .059	- .022	- .017	+ .031	- .001	+ .012	+ .047	+ .001	+ .018	+ .015	- .006	+ .015
S.	+ .032	+ .007	+ .012	+ .018	+ .008	+ .011	+ .014	+ .017	+ .016	+ .020	+ .011	+ .013
S.W.	+ .016	+ .038	+ .023	+ .051	+ .040	+ .034	+ .052	+ .068	+ .059	+ .032	+ .050	+ .039
W.	- .013	- .022	- .016	- .009	- .009	- .009	- .006	- .004	- .005	- .010	- .012	- .010
N.W.	- .021	- .005	- .045	- .024	- .041	- .033	- .020	- .045	- .033	- .023	- .052	- .037
Caln.	- .001	- .018	- .008	+ .013	- .015	- .008	+ .016	- .009	+ .004	+ .009	- .014	- .005

TABLE XIV.

Mean abnormal variations of the Pressure of Vapour, with their proper signs, arranged according to the direction of the wind, in each month and in the year, for the period 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
N.	-0.051	-0.024	-0.009	-0.005	-0.022	-0.058	-0.067	-0.019	-0.031	+0.008	-0.014	-0.036	-0.028
N.E.	- .012	+ .036	- .003	- .003	+ .031	- .035	- .030	+ .021	- .013	+ .035	+ .018	+ .005	+ .006
E.	+ .015	+ .023	+ .011	+ .006	.000	- .002	- .018	+ .023	+ .033	+ .086	+ .046	+ .035	+ .015
S.E.	+ .023	+ .017	+ .013	- .007	- .008	- .077	- .009	+ .053	- .008	+ .086	+ .053	+ .033	+ .015
S.	+ .031	+ .026	+ .004	- .019	+ .012	- .031	- .009	+ .026	+ .058	+ .027	+ .009	+ .015	+ .013
S.W.	+ .013	+ .029	+ .021	+ .021	+ .007	+ .046	+ .045	+ .065	+ .092	+ .101	- .013	+ .054	+ .039
W.	- .017	+ .002	- .001	- .003	- .008	- .029	- .012	+ .017	- .012	- .001	- .026	- .014	- .010
N.W.	- .033	- .032	- .025	- .016	- .018	- .040	- .071	- .061	- .076	- .011	- .012	- .021	- .037
Caln.	- .021	- .005	+ .016	- .002	- .027	- .044	.000	+ .002	- .014	+ .019	- .002	+ .002	- .005

TABLE XLIV.

Mean Differences, without regard to sign, between the Pressures of Vapour at 6 a.m. on consecutive days, for each month in the years 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.040	0.044	0.041	0.045	0.046	0.101	0.107	0.082	0.089	0.053	0.047	0.034	0.061
1861	.054	.044	.047	.011	.014	.087	.070	.073	.089	.059	.033	.050	.059
1862	.041	.043	.029	.037	.034	.088	.079	.110	.102	.082	.013	.049	.063
Means 1860 to 1862	0.038	0.043	0.039	0.041	0.051	0.091	0.114	0.088	0.093	0.065	0.044	0.044	0.069

TABLE XLV.

Mean changes in the Pressures of Vapour with their proper signs, from 6 a.m. to 6 a.m., for the period 1860 to 1862, arranged according to the daily resultant direction of the wind.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
N.	-0.011	-0.007	-0.021	-0.027	-0.004	-0.014	-0.010	+0.001	-0.008	-0.029	+0.020	-0.005	-0.029
N.E.	+0.028	+0.022	+0.011	+0.019	+0.018	-0.007	+0.009	-0.029	+0.014	+0.021	+0.022	+0.024	+0.015
E.	+0.019	+0.061	+0.034	+0.027	+0.019	+0.059	+0.052	+0.013	+0.108	+0.058	+0.022	+0.059	+0.043
S.E.	+	+0.023	+0.028	+0.036	+0.031	+0.128	+0.093	+0.131	+0.109	+0.034	+0.091	+0.060	+0.085
S.	+0.014	+0.042	+0.035	+0.039	+0.069	+0.119	+0.074	+0.032	+0.082	+0.106	+0.017	+0.061	+0.057
S.W.	+0.028	+0.044	+0.031	+0.031	+0.039	+0.075	+0.043	+0.029	+0.011	+0.015	+0.031	+0.037	+0.021
W.	+0.022	+0.019	+0.022	+0.032	+0.048	+0.039	+0.090	+0.060	+0.061	+0.059	+0.025	+0.072	+0.050
N.W.	-0.018	-0.024	-0.012	-0.027	-0.027	-0.063	-0.062	-0.032	-0.111	-0.045	-0.029	-0.010	-0.014

* No case of a S.E. resultant occurred in January.

TABLE XLVI.

Highest and lowest Pressures of Vapour in each month, for the years 1860, 1861, and 1862.

HIGHEST.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													Pressures.	Dates.
1860	0.293	0.292	0.431	0.388	0.478	0.714	0.710	0.822	0.651	0.450	0.481	0.222	0.822	August 7th.
1861	.140	.274	.278	.410	.515	.678	.704	.838	.672	.494	.235	.339	.823	August 5th.
1862	.244	.199	.229	.455	.484	.643	.734	.828	.718	.671	.565	.343	.818	August 8th.
Means	0.234	0.255	0.313	0.419	0.558	0.678	0.710	0.821	0.699	0.510	0.361	0.322	0.824	

LOWEST.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													Pressures.	Dates.
1860	0.023	0.022	0.015	0.059	0.133	0.142	0.195	0.299	0.194	0.121	0.043	0.029	0.022	February 1.
1861	.028	.012	.028	.090	.102	.150	.236	.275	.182	.118	.090	.051	.012	February 7.
1862	.025	.034	.062	.050	.111	.086	.221	.217	.172	.136	.083	.039	.028	January 4.
Means	0.025	0.023	0.015	0.079	0.135	0.132	0.211	0.250	0.163	0.102	0.074	0.030	0.020	

TABLE XLVII.
Monthly means of the Relative Humidity, at each of the six observation hours, from 1860 to 1862 inclusive.

Temper. Astronomical Time.	Temper. Astronomical Time.						Means.
	2 ^h	4 ^h	10 ^h	12 ^h	18 ^h	20 ^h	
January ... 1860	73	76	82	84	85	81	72
" ... 1861	84	84	89	90	90	88	74
" ... 1862	75	77	80	82	86	81	72
Means	78	79	84	87	87	83	74
February ... 1860	72	74	82	87	87	84	75
" ... 1861	80	79	84	87	87	86	78
" ... 1862	77	78	86	87	89	84	74
Means	76	77	85	86	88	86	76
March ... 1860	65	61	73	73	78	74	74
" ... 1861	70	70	84	85	87	83	80
" ... 1862	75	74	84	86	87	84	82
Means	70	68	80	81	84	80	78
April ... 1860	64	64	80	80	81	73	74
" ... 1861	65	62	75	78	81	74	82
" ... 1862	66	64	75	78	80	75	82
Means	65	63	77	79	81	74	73
May ... 1860	67	67	79	81	83	76	80
" ... 1861	58	58	73	77	78	71	79
" ... 1862	56	53	70	71	72	65	80
Means	60	59	74	76	78	71	80
June ... 1860	62	62	75	76	78	74	81
" ... 1861	59	59	74	76	75	70	81
" ... 1862	59	60	69	70	72	64	83
Means	60	60	73	74	75	69	82
July ... 1860	59	56	78	80	81	74	72
" ... 1861	65	64	78	80	80	71	73
" ... 1862	62	60	76	79	82	74	72
Means	62	60	77	80	81	74	72
August ... 1860	65	64	80	82	85	77	75
" ... 1861	70	70	81	83	84	78	78
" ... 1862	65	64	77	80	82	75	74
Means	67	66	79	82	84	77	76
September ... 1860	64	64	79	81	83	75	74
" ... 1861	70	70	81	83	87	81	79
" ... 1862	69	69	84	86	88	82	80
Means	68	68	81	83	86	79	78
October ... 1860	71	74	85	84	88	83	81
" ... 1861	73	72	87	88	86	84	82
" ... 1862	73	71	83	86	88	84	82
Means	73	75	86	86	88	84	82
November ... 1860	74	75	81	82	86	84	80
" ... 1861	69	72	81	81	87	84	79
" ... 1862	73	74	83	84	85	82	80
Means	72	74	82	82	86	83	80
December ... 1860	78	81	87	86	88	87	81
" ... 1861	72	75	82	82	83	81	79
" ... 1862	78	79	84	85	87	83	83
Means	76	78	84	84	87	84	82

TABLE XLVIII.

Monthly and annual means of the Relative Humidity furnished by six daily observations, from 1860 to 1862.

	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	81	81	71	74	76	71	72	76	74	81	80	84	76
1861	88	84	80	73	69	69	73	78	79	82	79	79	78
1862	81	84	82	73	65	66	72	74	80	82	50	83	77
Means 1860 to 1862	83	83	78	73	70	69	72	76	78	82	80	82	77
Means 1854 to 1859	82	80	77	72	70	74	73	73	77	76	78	81	76

TABLE XLIX.

Monthly means of the Relative Humidity at each of the six observation hours, for the period 1860 to 1862.

Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
2h	78	76	70	65	60	60	62	67	68	73	72	76	69
4	79	77	68	63	59	60	60	66	68	75	74	78	69
10	84	85	80	77	74	73	77	79	81	86	82	84	80
12	85	86	81	79	76	74	80	82	83	86	82	84	81
18	87	88	84	81	78	75	81	84	86	88	86	87	84
20	85	86	80	74	71	69	74	77	79	84	83	84	79

TABLE L.

Monthly mean abnormal variations of the Relative Humidity without regard to sign, for each month of the years 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	8.2	8.1	13.3	10.5	11.2	11.1	9.9	7.7	10.3	8.4	8.6	7.1	9.5
1861	7.5	9.5	8.1	12.0	10.3	10.9	7.6	8.1	7.3	8.1	8.3	9.8	9.0
1862	8.4	8.4	8.5	10.9	13.8	15.0	11.0	8.8	7.4	8.8	7.5	7.2	9.6
Means 1860 to 1862	8.0	8.7	10.0	11.1	11.8	12.3	9.5	8.2	8.3	8.4	8.1	8.0	9.4

TABLE LI.

Monthly mean abnormal variations of the Relative Humidity without regard to sign, at each of the six observation hours, for the period 1860 to 1862.

Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
2h	9.9	11.2	12.2	12.9	12.4	14.0	11.2	10.3	10.9	10.0	10.6	10.5	11.3
4	10.2	10.9	13.5	15.1	13.7	13.8	11.9	11.7	10.8	10.9	9.8	10.0	11.9
10	7.7	8.4	9.1	9.9	11.8	11.2	9.2	7.4	7.3	7.2	7.3	7.0	8.6
12	6.6	8.3	8.6	8.7	11.0	11.2	8.2	6.5	6.6	7.4	7.6	7.3	8.2
18	6.2	6.6	8.1	8.2	10.1	11.1	7.3	6.2	6.0	6.5	6.4	6.2	7.4
20	7.6	6.6	8.3	12.1	11.6	12.7	9.1	7.2	8.4	8.3	7.1	6.9	8.8

TABLE LII.

Mean abnormal variations of the Relative Humidity, with their proper signs, arranged according to the direction of the wind, for each year and for the winter and summer half years, from 1860 to 1862, the summer being considered to begin April 1st, and end September 30th.

	1860.			1861.			1862.			Mean 1860 to 1862.		
	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.
N.	0.0	-3.6	-2.1	+1.9	-4.7	-1.5	-0.2	-9.2	-4.5	+0.5	-5.8	-2.8
N.E.	+4.9	+4.4	+4.6	+5.6	+0.6	+3.3	+2.4	-2.5	0.0	+3.2	+1.1	+2.6
E.	+6.9	+0.9	+3.9	+4.8	+1.5	+3.2	+7.0	+2.5	+4.4	+6.2	+1.8	+3.9
S.E.	+3.1	-0.7	+1.1	+4.4	-0.9	+1.2	+5.0	-2.5	+0.3	+4.2	-1.4	+0.9
S.	-2.1	-0.7	-0.2	+3.2	-1.6	0.0	-0.1	-2.3	-1.6	+1.6	0.0	+0.8
S.W.	-2.4	+1.7	-1.1	+0.8	-0.3	+0.4	+2.1	+0.9	+1.6	-2.8	-4.0	-3.2
W.	-5.2	-3.4	-4.5	-1.3	-2.5	-1.7	-1.5	-6.0	-3.2	-2.8	-4.0	-3.2
N.W.	-4.9	-5.6	-5.8	-2.1	-5.1	-3.0	-3.2	-9.7	-6.0	-3.3	-5.8	-5.1
Calms.	+1.2	+1.1	+1.2	+2.5	-1.7	-0.6	+3.8	-1.5	+1.8	+2.8	-1.3	+0.4

TABLE LIII.

Mean abnormal variations of the Relative Humidity, with their proper signs, arranged according to the direction of the wind, in each month and in the year, for the period 1860 to 1862.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
N.	-1.6	+3.3	+3.8	-0.5	-8.9	-12.5	-4.4	-5.6	-2.3	+0.1	-1.7	+1.2	-2.8
N.E.	+5.1	+9.4	+5.6	+1.8	+3.0	-5.7	+2.5	+2.5	-0.3	+1.9	+1.2	+2.1	2.6
E.	+5.6	+9.6	+4.7	+2.0	+2.0	-2.9	+3.6	+3.5	+1.1	+0.1	+0.6	+5.3	+3.9
S.E.	+5.5	+8.5	+2.2	-5.6	-5.5	-3.5	+2.5	+3.7	+0.4	+6.3	+4.4	-2.4	+0.9
S.	+6.5	-0.8	-1.2	+2.1	-1.1	-9.6	-0.2	+0.7	-0.4	+0.2	+0.8	+5.3	-0.7
S.W.	+0.1	+1.1	1.3	-2.1	-1.1	+1.2	+1.4	+1.1	+2.7	+2.1	-1.6	+0.6	+0.3
W.	-3.2	+0.9	-3.3	+0.9	-2.0	-9.9	-3.1	-5.1	-7.5	-1.2	-0.1	-3.0	-3.2
N.W.	-2.5	-0.3	-3.8	-1.1	-6.3	-12.5	-0.1	-5.4	-8.7	-3.4	-4.5	-2.0	-5.1
Calms.	+0.1	+4.2	+1.6	+6.5	-1.7	-6.8	-1.8	-0.8	+0.8	+5.0	+2.5	-0.1	+0.4

TABLE LIV.

Mean difference, without regard to sign, between the Relative Humidity at 6 a.m. on consecutive days, for each month in the years 1860 to 1862.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1860	9.5	6.7	12.9	10.0	10.1	12.5	10.2	7.7	11.4	7.5	10.8	6.6	9.7
1861	4.8	9.0	7.8	14.2	11.0	11.4	7.5	6.3	5.7	8.9	7.3	10.0	8.7
1862	9.4	6.1	6.1	8.2	11.9	13.1	8.6	9.1	6.0	7.1	6.7	7.5	8.3
Means 1860 to 1862	7.9	7.3	8.9	10.8	11.0	12.1	8.8	7.7	7.7	7.8	7.9	8.0	8.9

TABLE LV.

Mean changes in the Relative Humidity, with the proper signs, from 6 a.m. to 6 a.m. for the period 1860 to 1862, arranged according to the daily resultant direction of the wind.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
N.	+0.4	+0.8	-7.5	-2.8	-2.8	+0.3	+2.8	+0.5	-3.0	-3.2	-5.1	-3.7	-1.4
N.E.	+1.4	+1.1	+0.7	-2.0	+3.3	-3.8	-0.2	-3.0	+1.2	+0.8	+4.2	+3.8	+0.8
E.	+3.5	+2.5	+3.4	+3.5	-2.6	+4.9	+4.8	+1.1	+5.3	+5.2	+7.1	+5.6	+3.9
E.S.	•	+0.5	+0.9	-2.0	-1.0	+5.3	+5.7	+0.6	+7.9	-2.5	+5.8	+1.3	+3.3
S.	+1.5	-1.0	-1.0	+21.5	-2.8	+6.5	-3.4	+5.6	+0.7	-1.0	-2.9	-0.0	+2.8
S.W.	+0.5	-5.1	-0.9	-7.3	+4.2	+5.4	+0.9	-0.2	+2.6	-0.2	-0.3	-0.6	-0.4
W.	-1.8	-0.3	-2.8	-1.0	-7.8	-1.5	-5.5	+0.1	-0.7	-2.9	-0.5	-1.3	-1.9
N.W.	+0.4	+2.4	+0.8	-1.9	-2.8	-5.3	-0.6	-0.0	-4.8	+1.3	-2.2	+0.7	-2.2

* No case of a S.E. resultant occurred in January.

TABLE LVI

Comparative view of the Annual variations of certain Meteorological elements derived from the series 1842-48, 1854-59, and 1860-1862.

Months.	Temperature.			Barometer.			Pressure of Dry Air.			Pressure of Vapour.			Relative Humidity.		
	1842	1854	1860	1842	1854	1860	1842	1854	1860	1842	1854	1860	1842	1854	1860
	1848	1859	1862	1848	1859	1862	1848	1859	1862	1848	1859	1862	1848	1859	1862
January	-19.00	-20.44	-22.71	-0.003	+0.053	+0.005	+0.130	+0.200	+0.221	-1.42	-1.48	-1.66	+5	+6	-6
February	-21.05	-23.09	-20.38	-0.07	+0.35	-0.01	+1.49	+1.80	+1.13	-1.56	-1.54	-1.45	-2	+4	+6
March	-14.51	-14.58	-11.12	+0.01	-0.16	-0.01	+1.31	+0.64	+0.64	-1.90	-1.25	-1.25	-3	+1	+1
April	-1.68	-3.47	-3.91	+0.00	-0.42	+0.17	+0.93	+0.62	+0.88	-0.57	-0.74	-0.72	-6	-4	-4
May	+8.59	+7.62	+7.33	-0.56	-0.18	-0.39	-0.69	-0.65	-0.52	-0.33	+0.08	+0.13	-5	-0	-7
June	+16.57	+17.35	+17.28	-0.41	-0.70	-0.02	-1.82	-2.19	-1.80	-1.38	+1.40	+1.18	-2	-2	-8
July	+21.97	+24.88	+20.94	-0.32	-0.00	-0.52	-2.35	-2.49	-2.46	+2.04	+2.48	+3.5	-4	-3	-5
August	+21.42	+22.08	+21.69	+0.17	-0.08	+0.11	-2.13	-2.08	-2.17	+2.50	+2.00	+2.28	+1	-3	-1
September	+13.37	+14.95	+13.75	+0.20	+0.01	+0.43	-0.92	-0.61	-0.76	+1.18	+1.20	+1.20	+2	+1	+1
October	+6.12	+2.42	+3.94	+0.42	+0.59	+0.20	+0.94	+0.50	+0.64	-0.22	-0.11	+0.27	+4	0	+5
November	+8.08	+7.26	+7.41	+0.05	-0.13	-0.41	+0.83	+0.61	+0.59	-1.88	-0.92	-0.80	+6	+2	+3
December	-10.89	-19.03	-10.32	+0.22	+0.66	+0.01	+1.55	+1.95	+2.15	-2.25	-1.38	-1.25	+3	+5	+6

TABLE LVII.

Comparative view of the Annual means of the diurnal variations at the six observation hours for the same three series.

Hours.	Temperature.			Barometer.			Pressure of Dry Air.			Pressure of Vapour.			Relative Humidity.		
	1842	1854	1860	1842	1854	1860	1842	1854	1860	1842	1854	1860	1842	1854	1860
	1848	1859	1862	1848	1859	1862	1848	1859	1862	1848	1859	1862	1848	1859	1862
2	+0.90	+0.77	+0.84	-0.013	-0.015	-0.015	-0.049	-0.052	-0.034	+0.28	+0.17	+0.19	-9	-9	-8
4	+5.36	+4.47	+4.39	-0.18	-0.19	-0.18	-0.41	-0.41	-0.42	+0.21	+0.12	+0.14	-9	-8	-8
10	-2.39	-1.85	-1.68	-0.01	+0.05	+0.05	+0.11	+0.09	+0.10	-0.12	-0.05	-0.05	+3	+4	+3
12	-3.42	-3.99	-2.80	-0.05	+0.02	+0.04	+0.12	+0.12	+0.14	-0.17	-0.10	-0.11	+5	+5	+4
18	-4.36	-3.93	-3.81	+0.10	+0.09	+0.10	+0.12	+0.12	+0.12	-0.22	-0.14	-0.11	+7	+7	+7
20	-1.21	-1.22	-1.06	+0.25	+0.20	+0.19	+0.25	+0.20	+0.19	0.00	0.00	0.00	+2	+2	+5



TABLE LVIII.
Monthly means of the extent of Sky Clouded, at each of the six observation hours, for the years 1860 to 1862.

Toronto Astronomical Time.		2 ^h	4 ^h	10 ^h	12 ^a	1 ^h ^b	20 ^h	Year.
January ..	1860	0.81	0.77	0.54	0.47	0.82	0.86	0.71
" ..	1861	.77	.76	.66	.70	.80	.85	.76
" ..	1862	.81	.82	.62	.68	.70	.73	.73
	Means	0.80	0.78	0.61	0.62	0.77	0.81	0.73
February ..	1860	0.64	0.70	0.60	0.62	0.74	0.74	0.67
" ..	1861	.80	.86	.79	.78	.78	.80	.83
" ..	1862	.82	.72	.67	.72	.59	.86	.78
	Means	0.78	0.76	0.69	0.71	0.75	0.83	0.76
March	1860	0.47	0.49	0.41	0.46	0.56	0.51	0.49
" ..	1861	.59	.61	.62	.61	.66	.63	.62
" ..	1862	.59	.71	.60	.55	.66	.69	.63
	Means	0.55	0.60	0.54	0.54	0.63	0.61	0.58
April	1860	0.67	0.65	0.49	0.49	0.59	0.66	0.59
" ..	1861	.65	.63	.54	.55	.67	.64	.61
" ..	1862	.68	.65	.53	.60	.68	.74	.65
	Means	0.67	0.64	0.52	0.55	0.65	0.68	0.62
May	1860	0.64	0.61	0.50	0.51	0.63	0.56	0.57
" ..	1861	.54	.50	.36	.45	.53	.56	.49
" ..	1862	.45	.44	.45	.36	.50	.47	.45
	Means	0.55	0.52	0.44	0.44	0.55	0.53	0.50
June	1860	0.66	0.65	0.47	0.44	0.60	0.65	0.58
" ..	1861	.52	.53	.38	.42	.37	.46	.45
" ..	1862	.74	.70	.42	.46	.56	.68	.60
	Means	0.64	0.63	0.42	0.44	0.52	0.60	0.54
Toronto Astronomical Time.		2 ^h	4 ^h	10 ^h	12 ^a	1 ^h ^b	20 ^h	Year.
July.....	1860	0.50	0.47	0.40	0.43	0.35	0.43	0.43
" ..	1861	.66	.67	.49	.42	.54	.56	.56
" ..	1862	.72	.59	.42	.46	.57	.62	.56
	Means	0.63	0.58	0.44	0.44	0.49	0.54	0.52
August.....	1860	0.50	0.47	0.46	0.46	0.39	0.30	0.43
" ..	1861	.64	.61	.41	.42	.58	.54	.54
" ..	1862	.57	.52	.29	.36	.45	.49	.43
	Means	0.57	0.54	0.40	0.41	0.47	0.44	0.47
September..	1860	0.57	0.60	0.35	0.36	0.53	0.46	0.48
" ..	1861	.72	.62	.62	.58	.50	.64	.60
" ..	1862	.42	.38	.44	.53	.56	.50	.47
	Means	0.57	0.53	0.46	0.46	0.56	0.53	0.52
October ...	1860	0.69	0.69	0.64	0.64	0.77	0.74	0.70
" ..	1861	.69	.65	.51	.61	.54	.64	.61
" ..	1862	.76	.77	.70	.66	.71	.73	.72
	Means	0.71	0.70	0.62	0.64	0.67	0.71	0.68
November..	1860	0.77	0.78	0.66	0.63	0.68	0.71	0.70
" ..	1861	.72	.71	.74	.73	.75	.78	.74
" ..	1862	.82	.79	.74	.75	.79	.82	.79
	Means	0.77	0.76	0.71	0.70	0.74	0.77	0.74
December...1860	0.81	0.81	0.75	0.84	0.86	0.89	0.83	
" .. 1861	.64	.64	.57	.55	.61	.68	.62	
" .. 1862	.70	.73	.78	.86	.77	.65	.75	
	Means	0.72	0.73	0.70	0.75	0.75	0.74	0.73

TABLE LIX.

Monthly and Annual means of the extent of sky clouded, from six daily observations, for 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	0.71	0.67	0.49	0.59	0.57	0.58	0.43	0.43	0.48	0.70	0.70	0.83	0.60
1861	.76	.83	.62	.61	.49	.45	.56	.54	.60	.61	.74	.62	0.62
1862	.73	.78	.63	.65	.45	.60	.56	.45	.47	.72	.79	.75	0.63
Means 1860 to 1862	0.73	0.76	0.58	0.62	0.50	0.54	0.52	0.47	0.52	0.68	0.74	0.73	0.62
Means 1854 to 1859	0.71	0.69	0.60	0.59	0.52	0.55	0.46	0.44	0.48	0.60	0.74	0.75	0.59

TABLE LX.

Monthly means of the extent of sky clouded at each observation hour, for the period 1860 to 1862.

Toronto Astronomical Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													1860 to 1862	1854 to 1859.
2h	0.80	0.78	0.55	0.67	0.55	0.64	0.63	0.57	0.57	0.71	0.77	0.72	0.66	0.65
4	.78	.76	.60	.64	.52	.63	.58	.54	.53	.70	.76	.73	.65	.63
10	.61	.69	.54	.52	.44	.42	.44	.40	.46	.62	.71	.70	.55	.52
12	.62	.71	.54	.55	.44	.44	.44	.41	.46	.64	.70	.75	.56	.52
18	.77	.80	.63	.65	.55	.52	.49	.47	.56	.67	.74	.75	.63	.62
20	.81	.83	.61	.68	.53	.60	.54	.44	.53	.71	.77	.74	.65	.62

TABLE LXI.

Mean clouded sky, arranged according to the direction of the wind at the hour of observation, in each month and in the year, for the period 1860 to 1862.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
													1860 to 1862	1854 to 1859.
N.	0.70	0.62	0.58	0.52	0.30	0.38	0.47	0.36	0.56	0.67	0.76	0.58	0.54	0.50
N.E.	.87	.93	.71	.77	.65	.76	.62	.70	.71	.75	.84	.89	.76	.74
E.	.97	.97	.77	.70	.66	.68	.73	.62	.58	.80	.79	.97	.77	.70
S.E.	1.00	.98	.46	.46	.36	.75	.49	.55	.60	.71	.93	.89	.63	.57
S.	0.96	.65	.42	.54	.38	.55	.55	.48	.47	.65	.84	.84	.56	.48
S.W.	.77	.74	.59	.65	.54	.62	.66	.62	.64	.57	.78	.76	.68	.67
W.	.59	.74	.58	.68	.72	.52	.59	.36	.41	.68	.71	.73	.63	.57
N.W.	.57	.59	.49	.52	.42	.40	.36	.32	.42	.56	.62	.65	.49	.53
Calms.	.72	.76	.43	.59	.34	.43	.47	.46	.48	.69	.75	.59	.55	.55

Means 0.73 0.74 0.75 0.70 0.75 0.72 0.73 0.54 0.60 0.52 0.44 0.42 0.63 0.64 0.54

TABLE LXII.

Number of hours that each wind blew in each month and in the year, for the periods 1853-1857, 1858-1862, and 1853-1862.
1853-1857.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calm.	Sums.	
January	189	211	126	143	98	55	42	51	130	296	598	407	228	250	313	294	3720	
February	246	191	142	128	209	91	36	52	81	158	370	439	320	234	305	137	3384	
March	132	77	157	188	87	99	45	127	199	561	299	428	405	472	336	136	3715	
April	329	233	197	234	331	201	108	160	156	271	119	122	185	265	314	265	3600	
May	317	116	158	296	339	263	131	120	236	328	187	95	107	164	209	429	3720	
June	160	99	172	286	336	182	123	108	251	328	136	205	202	208	202	174	3456	
July	230	173	144	202	303	194	140	263	313	377	179	114	122	173	193	300	3720	
August	293	609	145	149	218	114	170	157	240	297	206	110	207	282	296	346	281	3720
September	269	218	164	195	237	143	150	157	208	253	230	141	136	196	263	314	330	3594
October	210	151	209	214	205	111	56	104	219	221	174	183	274	294	283	295	397	3000
November	148	101	117	273	97	108	104	105	220	366	465	365	265	187	207	196	3600	
December	284	241	196	150	135	100	53	49	41	118	347	985	396	248	302	240	3720	
Year	2899	1998	1932	2413	2937	1681	1228	1307	2022	2900	*3034	3215	3198	3052	3095	3663	2975	43549

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calm.	Sums.	
January	220	17	9	163	206	70	38	60	57	181	389	533	388	278	266	296	196	3720
February	207	72	0	186	198	55	59	54	47	197	274	372	401	314	288	247	200	3384
March	162	58	55	331	348	102	77	63	59	150	197	240	382	447	306	265	147	3720
April	204	142	186	410	547	170	107	89	163	117	132	172	265	337	237	303	179	3720
May	196	160	216	450	499	149	89	120	172	245	92	99	165	257	312	319	177	3720
June	237	101	104	251	319	154	62	114	270	341	227	111	167	172	388	392	190	3600
July	204	122	85	218	250	183	142	163	322	330	189	135	145	242	342	389	259	3720
August	182	162	153	158	278	176	108	125	273	300	185	129	174	295	392	404	225	3720
September	261	137	149	194	218	100	163	113	209	388	180	145	231	231	233	261	421	3600
October	251	186	159	244	269	147	67	74	142	239	278	193	274	429	270	241	27	3720
November	226	185	190	183	245	115	50	58	65	131	238	441	336	310	310	279	250	3582
December	251	202	188	204	189	100	49	44	28	122	313	456	473	280	301	314	116	3720
Year	2611	1780	1655	2992	3596	1521	951	1077	1750	2741	2694	3032	3407	3612	3840	3710	2567	43506

1858-1862.

TABLE LXII.—*continue.*
1853-1862.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.	Sums.
January	510	359	420	289	349	168	92	102	308	311	685	1131	795	506	516	609	490	7440
February	453	315	302	314	407	146	95	105	128	355	519	748	840	634	517	552	337	6768
March	294	165	233	488	536	189	176	108	186	349	558	539	810	942	978	601	283	7435
April	524	375	383	644	878	371	215	195	233	388	311	291	387	522	502	617	344	7200
May	513	276	374	746	838	412	220	240	411	573	279	194	272	421	521	748	402	7440
June	337	200	276	537	675	332	185	222	521	669	491	247	372	374	596	594	364	7056
July	434	295	229	420	553	377	282	426	635	707	368	249	267	415	535	689	559	7440
August	475	372	298	307	496	290	278	292	514	597	391	239	381	577	688	750	506	7440
September	530	355	313	389	455	243	253	270	417	641	410	286	363	447	496	575	751	7194
October	461	337	368	458	474	258	123	178	361	460	452	376	548	723	553	536	654	7320
November	374	286	307	459	518	212	158	162	170	351	604	906	701	575	497	485	416	7182
December	543	443	384	354	324	200	102	93	69	240	660	1041	869	528	536	616	436	7440
Year	5510	3778	3887	5405	6503	3202	2179	2384	3772	5641	5728	6247	6605	6664	6935	7373	5542	87355

TABLE LXIII.

Number of hours that each wind blew in each quarter, including December of the same year, for 1853-57, 1858-62, and 1853-1862.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.	Sums.
1853-57	820	621	549	404	487	280	143	143	173	406	888	1553	1242	796	719	920	671	10824
1858-62	688	496	557	553	593	225	146	158	132	500	976	1367	1262	872	850	857	592	10824
1853-62	1508	1117	1106	957	1080	514	289	301	305	906	1864	2920	2504	1663	1569	1777	1263	21648
1853-57	769	426	432	687	858	551	338	271	513	798	727	513	657	844	946	1079	626	11035
1858-62	562	390	558	1191	1394	421	273	372	337	512	421	1034	1469	1041	1055	887	403	11040
1853-62	1331	816	990	1878	2252	972	611	543	830	1310	1148	1024	1469	1885	2001	1966	1029	22075
1853-57	683	481	461	637	877	490	433	528	804	1002	649	380	534	657	697	848	755	10896
1858-62	623	386	342	627	847	513	312	402	865	971	601	375	486	709	1122	1185	674	11040
1853-62	1306	867	803	1264	1724	1003	745	930	1669	1973	1250	785	1020	1366	1819	2033	1429	21936
1853-57	627	470	490	685	715	351	314	365	532	694	770	789	765	755	733	816	923	10794
1858-62	738	508	498	621	732	362	290	245	416	758	696	779	847	990	813	781	898	10902
1853-62	1365	978	988	1306	1447	713	534	610	948	1452	1466	1568	1612	1748	1546	1597	1821	21696

TABLE LXIV.

Ratios showing for each month separately the comparative duration of the different winds, being the numbers in Table LXVII. expressed in terms of their respective means for all winds, excluding a calm.

1853-1857.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
January.....	1.35	0.88	0.99	0.59	0.67	0.46	0.25	0.20	0.24	0.61	1.36	2.79	1.90	1.06	1.17	1.46
February.....	1.21	0.94	0.70	0.63	1.03	0.45	0.18	0.26	0.40	0.78	1.21	1.82	2.16	1.58	1.15	1.50
March.....	0.59	0.34	0.34	0.70	0.84	0.39	0.44	0.20	0.57	0.49	1.61	1.34	1.91	2.21	2.11	1.50
April.....	1.54	1.12	0.94	1.12	1.59	0.96	0.52	0.31	0.72	1.30	0.86	0.57	0.58	0.89	1.27	1.51
May.....	1.45	0.53	0.72	1.36	1.55	1.20	0.60	0.55	1.08	1.50	0.86	0.44	0.49	0.75	0.96	1.96
June.....	0.78	0.48	0.84	1.39	1.74	0.89	0.60	0.53	1.22	1.69	1.29	0.66	1.00	0.98	1.01	0.99
July.....	1.08	0.81	0.67	0.95	1.42	0.91	0.66	1.23	1.46	1.76	0.84	0.53	0.57	0.81	0.90	1.40
August.....	1.33	0.97	0.68	0.69	1.01	0.53	0.79	0.73	1.12	1.38	0.96	0.51	0.96	1.31	1.38	1.61
September.....	1.32	1.07	0.80	0.96	1.16	0.70	0.73	0.77	1.02	1.24	1.13	0.69	0.62	0.96	1.29	1.54
October.....	1.05	0.75	1.04	1.07	1.02	0.55	0.28	0.52	1.09	1.10	0.87	0.91	1.37	1.47	1.41	1.47
November.....	0.70	0.47	0.55	1.30	1.28	0.46	0.51	0.49	0.49	1.03	1.72	2.19	1.72	1.95	0.88	0.97
December.....	1.31	1.11	0.90	0.69	0.62	0.46	0.24	0.22	0.19	0.54	1.60	2.69	1.82	1.14	1.08	1.39
Year.....	1.14	0.79	0.76	0.95	1.16	0.66	0.48	0.52	0.80	1.14	1.20	1.27	1.26	1.20	1.22	1.44
Arithmetic Means	1.14	0.79	0.77	0.95	1.16	0.66	0.48	0.52	0.80	1.15	1.19	1.26	1.26	1.20	1.22	1.44

1858-1862.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
January.....	1.00	0.77	0.95	0.74	0.94	0.32	0.17	0.27	0.26	0.82	1.77	2.42	1.76	1.26	1.21	1.34
February.....	1.04	0.62	0.80	0.94	0.99	0.28	0.30	0.27	0.24	0.97	1.38	1.90	2.01	1.58	1.42	1.24
March.....	0.73	0.39	0.70	1.48	1.56	0.46	0.34	0.28	0.26	0.67	0.88	1.08	1.71	2.00	2.27	1.19
April.....	0.93	0.64	0.85	1.86	2.49	0.77	0.49	0.40	0.47	0.53	0.60	0.78	1.20	1.53	1.08	1.38
May.....	0.88	0.72	0.98	2.03	2.25	0.67	0.40	0.54	0.79	1.11	0.42	0.45	0.75	1.16	1.41	1.44
June.....	1.11	0.47	0.49	1.18	1.50	0.72	0.29	0.53	1.27	1.60	1.07	0.52	0.78	0.81	1.82	1.84
July.....	0.94	0.56	0.39	1.01	1.16	0.85	0.68	0.75	1.49	1.53	0.87	0.62	0.67	1.12	1.58	1.80
August.....	0.83	0.75	0.70	0.72	1.27	0.81	0.49	0.57	1.25	1.37	0.85	0.59	0.80	1.35	1.80	1.85
September.....	1.31	0.69	0.75	0.98	1.10	0.50	0.32	0.57	1.05	1.95	0.91	0.73	1.19	1.26	1.17	1.31
October.....	1.16	0.86	0.74	1.13	1.24	0.68	0.31	0.28	0.66	1.10	1.28	0.89	1.27	1.98	1.25	1.11
November.....	1.08	0.88	0.90	0.87	1.17	0.55	0.24	0.34	0.62	1.13	1.28	2.10	1.60	1.48	1.48	1.33
December.....	1.18	0.92	0.85	0.93	0.86	0.45	0.22	0.20	0.13	0.55	1.42	2.07	2.15	1.27	1.37	1.43
Year.....	1.01	0.69	0.76	1.16	1.38	0.59	0.37	0.42	0.68	1.06	1.05	1.18	1.32	1.40	1.49	1.44
Arithmetic Means	1.02	0.69	0.76	1.15	1.38	0.59	0.37	0.42	0.68	1.07	1.05	1.18	1.32	1.40	1.49	1.44

Arithmetic Means { 1.02 0.69 0.76 1.15 1.38 0.59 0.37 0.42 0.68 1.07 1.05 1.18 1.32 1.40 1.49 1.44

TABLE LXIV.—Continued.
1853-1862.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
January.....	1.17	0.83	0.97	0.67	0.80	0.39	0.21	0.23	0.25	1.72	1.58	2.60	1.83	1.16	1.19	1.40
February.....	1.13	0.78	0.75	0.78	1.01	0.36	0.24	0.26	0.32	0.88	1.29	1.86	2.09	1.38	1.29	1.37
March.....	0.66	0.37	0.52	1.09	1.20	0.42	0.39	0.24	0.42	0.78	1.25	1.21	1.81	2.11	2.19	1.34
April.....	1.22	0.87	0.89	1.50	2.05	0.87	0.50	0.46	0.59	0.91	0.73	0.68	0.90	1.22	1.17	1.44
May.....	1.17	0.63	0.85	1.70	1.90	0.94	0.50	0.55	0.93	1.30	0.63	0.44	0.62	0.86	1.18	1.70
June.....	1.05	0.43	0.66	1.28	1.61	0.86	0.44	0.53	1.25	1.60	1.17	0.59	0.89	0.89	1.43	1.42
July.....	1.01	0.69	0.53	0.98	1.29	0.88	0.65	0.99	1.48	1.64	0.86	0.58	0.62	0.96	1.24	1.60
August.....	1.10	0.86	0.69	0.71	1.14	0.67	0.63	0.65	1.18	1.38	0.90	0.55	0.88	1.33	1.59	1.75
September.....	1.32	0.88	0.78	0.97	1.13	0.60	0.63	0.67	1.04	1.59	1.02	0.71	0.90	1.11	1.23	1.43
October.....	1.11	0.81	0.88	1.10	1.14	0.62	0.29	0.43	0.87	1.31	1.73	0.90	1.31	1.73	1.33	1.29
November.....	0.88	0.73	1.09	1.22	1.22	0.50	0.37	0.38	0.40	0.83	1.43	2.14	1.66	1.36	1.18	1.15
December.....	1.24	1.01	0.88	0.81	0.74	0.46	0.23	0.21	0.16	0.55	1.51	2.38	1.98	1.21	1.22	1.41
Year.....	1.08	0.74	0.76	1.06	1.27	0.63	0.43	0.47	0.74	1.10	1.12	1.22	1.29	1.30	1.36	1.44
Arithmetic Means	1.08	0.74	0.76	1.05	1.27	0.63	0.43	0.47	0.74	1.11	1.12	1.22	1.29	1.30	1.35	1.44

TABLE LXV.

Rates showing for each quarter the comparative duration of the different winds, being the numbers in Table LXVIII, expressed in terms of their respective means for all winds, excluding calms

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
1853-57	1.29	0.98	0.86	0.64	0.77	0.46	0.23	0.22	0.27	0.64	1.40	2.45	1.96	1.25	1.13	1.45
1858-62	1.08	0.78	0.87	0.86	0.93	0.35	0.23	0.25	0.21	0.78	1.53	2.14	1.97	1.36	1.33	1.34
1853-62	1.18	0.88	0.87	0.75	0.85	0.40	0.23	0.24	0.24	0.71	1.46	2.29	1.96	1.31	1.23	1.40
1853-57	1.18	0.65	0.66	1.06	1.32	0.85	0.52	0.42	0.79	1.23	1.12	0.79	1.01	1.30	1.45	1.65
1858-62	0.84	0.59	0.84	1.79	2.10	0.63	0.41	0.41	0.51	0.77	0.63	0.77	1.22	1.57	1.59	1.33
1853-62	1.01	0.62	0.75	1.43	1.71	0.74	0.46	0.41	0.65	1.00	0.87	0.78	1.12	1.43	1.52	1.50
1853-57	1.08	0.76	0.73	1.01	1.38	0.77	0.68	0.83	1.27	1.58	1.02	0.57	0.84	1.04	1.10	1.34
1858-62	0.96	0.60	0.53	0.97	1.31	0.79	0.48	0.62	1.33	1.50	0.93	0.58	0.75	1.09	1.75	1.83
1853-62	1.02	0.68	0.63	0.99	1.34	0.78	0.58	0.73	1.30	1.54	0.97	0.37	0.80	1.07	1.42	1.39
1853-57	1.02	0.76	0.79	1.11	1.16	0.57	0.51	0.59	0.86	1.13	1.25	1.28	1.24	1.22	1.19	1.32
1858-62	1.18	0.81	0.80	0.99	1.17	0.58	0.35	0.39	0.67	1.21	1.11	1.25	1.36	1.58	1.30	1.25
1853-62	1.10	0.79	0.80	1.05	1.17	0.57	0.43	0.49	0.76	1.17	1.18	1.26	1.30	1.40	1.24	1.29

** For Table LXVI, see Introduction, foot of page viii.

TABLE LXVII.

Ratios showing the annual distribution of each wind, being the numbers in Table LXIV. expressed in terms of their respective yearly Arithmetic means.

1853-1857.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
January.....	1.18	1.12	1.29	0.62	0.58	0.69	0.52	0.38	0.30	0.53	1.16	2.21	1.51	0.89	0.96	1.01
February.....	1.06	1.19	0.91	0.66	0.89	0.68	0.37	0.49	0.50	0.68	1.01	1.45	1.72	1.31	0.95	1.04
March.....	0.52	0.44	0.45	0.74	0.72	0.59	0.92	0.39	0.71	0.78	1.35	1.06	1.52	1.84	1.73	1.04
April.....	1.34	1.41	1.24	1.18	1.37	1.45	1.07	0.99	0.90	1.14	0.72	0.45	0.46	0.74	1.04	1.04
May.....	1.27	0.67	0.94	1.42	1.34	1.81	1.24	1.34	1.35	1.31	0.72	0.35	0.39	0.63	0.79	1.36
June.....	0.68	0.61	1.10	0.99	1.50	1.34	1.24	1.02	1.53	1.40	1.08	0.92	0.79	0.82	0.88	0.68
July.....	0.94	1.02	0.88	1.46	1.22	1.37	1.35	2.38	1.83	1.54	0.70	0.42	0.45	0.67	0.74	0.97
August.....	1.19	1.23	0.88	0.73	0.87	0.80	1.64	1.41	1.39	1.21	0.80	0.41	0.77	1.09	1.13	1.12
September.....	1.15	1.35	1.05	1.00	1.00	1.05	1.52	1.49	1.37	1.08	0.95	0.55	0.49	0.80	1.06	1.07
October.....	0.92	0.95	1.36	1.12	0.88	0.83	0.58	1.00	1.37	0.96	0.73	0.72	1.09	1.22	1.16	1.02
November.....	0.61	0.60	0.72	1.36	1.10	0.69	1.05	0.95	0.82	0.90	1.44	1.73	1.36	1.04	0.72	0.87
December.....	1.14	1.40	1.18	0.72	0.53	0.69	0.50	0.44	0.24	0.47	1.34	2.13	1.45	0.95	0.89	0.96

1858-1862.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
January.....	0.98	1.12	1.25	0.64	0.68	0.54	0.47	0.65	0.38	0.77	1.69	2.05	1.33	0.90	0.81	0.94
February.....	1.02	0.90	1.06	0.81	0.72	0.47	0.80	0.65	0.35	0.92	1.31	1.61	1.52	1.13	0.55	0.86
March.....	0.71	0.57	0.92	1.28	1.13	0.78	0.93	0.39	0.63	0.84	0.91	1.29	1.43	1.52	1.32	0.83
April.....	0.91	0.93	1.12	1.61	1.81	1.31	1.32	0.97	0.69	0.50	0.57	0.66	0.91	1.09	0.72	0.96
May.....	0.87	1.05	1.29	1.76	1.64	1.14	1.09	1.30	1.16	1.03	0.40	0.38	0.56	0.83	0.95	1.00
June.....	1.09	0.69	0.61	1.02	1.09	1.23	0.79	1.28	1.80	1.49	1.02	0.44	0.59	0.58	1.22	1.28
July.....	0.93	0.82	0.52	0.87	0.84	1.44	1.78	1.80	2.19	1.42	0.83	0.53	0.51	0.80	1.06	1.25
August.....	0.82	1.08	0.92	0.63	0.92	1.37	1.34	1.37	1.84	1.28	0.81	0.50	0.60	0.96	1.21	1.29
September.....	1.29	1.04	0.97	0.85	0.80	0.86	1.40	1.36	1.55	1.82	0.86	0.62	0.90	0.90	0.79	0.91
October.....	1.14	1.24	0.97	0.98	0.90	1.16	0.84	0.82	0.96	1.03	1.23	0.76	0.96	1.42	0.84	0.77
November.....	1.00	1.27	1.19	0.75	0.85	0.93	0.64	0.66	0.45	0.58	1.08	1.78	1.21	1.05	0.99	0.92
December.....	1.17	1.33	1.13	0.80	0.62	0.77	0.60	0.48	0.19	0.52	1.36	1.76	1.62	0.91	0.92	0.96

TABLE LXVII.—Continued.
1853-1862.

	N.	N.N.E.	N.E.	N.E.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
January	1.09	1.12	1.27	0.63	0.63	0.50	0.50	0.34	0.34	0.65	1.41	2.13	1.42	0.90	0.88	0.97
February	1.04	1.06	0.99	0.74	0.80	0.58	0.55	0.43	0.43	0.80	1.15	1.53	1.62	1.21	0.95	0.95
March	0.61	0.50	0.69	1.03	0.94	0.68	0.93	0.52	0.56	0.71	1.11	0.99	1.40	1.62	0.82	0.93
April	1.13	1.18	1.17	1.42	1.61	1.39	1.18	0.97	0.80	0.82	0.65	0.36	0.70	0.94	0.87	1.00
May	1.08	0.85	1.12	1.61	1.50	1.17	1.17	1.26	1.26	1.18	0.57	0.36	0.48	0.73	0.88	1.18
June	0.88	0.65	0.87	1.22	1.27	1.28	1.04	1.14	1.68	1.44	1.05	0.48	0.69	0.69	1.05	0.99
July	0.93	0.93	0.70	0.93	1.01	1.40	1.54	2.12	2.00	1.48	0.76	0.47	0.48	0.74	0.92	1.11
August	1.02	1.16	0.91	0.67	0.90	0.96	1.47	1.43	1.40	1.44	0.58	0.45	0.68	1.02	1.17	1.20
September	1.22	1.19	1.02	0.91	0.89	0.99	0.69	0.91	1.17	1.00	0.97	0.74	1.02	1.33	0.98	0.89
October	1.03	1.09	1.16	1.04	0.90	0.80	0.88	0.82	0.54	0.75	1.27	1.76	1.28	1.04	0.87	0.80
November	0.82	0.91	0.95	1.03	0.96	0.80	0.88	0.82	0.54	0.75	1.27	1.76	1.28	1.04	0.87	0.80
December	1.15	1.37	1.15	0.77	0.53	0.73	0.55	0.21	0.49	0.49	1.35	1.95	1.54	0.93	0.90	0.98

TABLE LXVIII.

Quarterly averages of the ratios in Table LXVII.

	N.	N.N.E.	N.E.	N.E.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.
Winter	1.13	1.24	1.13	0.67	0.67	0.69	0.46	0.44	0.35	0.56	1.17	1.93	1.56	1.05	0.93	1.00
Spring	1.04	0.84	0.88	1.11	1.14	1.28	1.08	0.81	0.99	1.08	0.93	0.62	0.79	1.07	1.19	1.15
Summer	0.94	0.95	0.95	1.06	1.20	1.17	1.41	1.60	1.58	1.38	0.86	0.45	0.67	0.86	0.90	0.92
Autumn	0.89	0.97	1.04	1.16	0.99	0.86	1.05	1.15	1.09	0.98	1.04	1.00	0.98	1.02	0.98	0.92
Winter	1.06	1.12	1.15	0.75	0.67	0.59	0.62	0.59	0.31	0.74	1.45	1.81	1.49	0.93	0.90	0.93
Spring	0.83	0.85	1.11	1.55	1.53	1.08	1.11	0.98	0.75	0.72	0.60	0.65	0.92	1.12	1.06	0.93
Summer	0.95	0.86	0.69	0.84	0.95	1.35	1.30	1.48	1.96	1.40	0.89	0.49	0.57	0.78	1.16	1.27
Autumn	1.16	1.17	1.05	0.86	0.85	0.98	0.96	0.95	0.99	1.14	1.06	1.05	1.02	1.12	0.87	0.87
Winter	1.09	1.18	1.14	0.71	0.67	0.64	0.63	0.51	0.33	0.65	1.30	1.87	1.53	1.01	0.91	0.97
Spring	0.94	0.84	0.99	1.35	1.35	1.19	1.09	0.99	0.87	0.90	0.78	0.64	0.86	1.10	1.12	1.04
Summer	0.94	0.91	0.83	0.94	1.06	1.25	1.36	1.55	1.76	1.39	0.87	0.47	0.62	0.82	1.05	1.10
Autumn	1.02	1.06	1.04	0.99	0.92	1.01	1.01	1.05	1.04	1.06	1.05	1.03	1.00	1.07	0.92	0.89

1857 to 1863 | 1863 to 1869 | 1869 to 1875

WINDS in the upper strata as shown by the motion of the clouds, from six daily observations during the years 1851 to 1862 inclusive.

TABLE LXIX.

Absolute number of the several upper currents in each month, in the two half-years, and in the year; the summer half-year being considered to extend from April to September inclusive.

	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Winter.	Summer.	Year.
N.	18	12	12	26	26	24	27	28	26	15	33	38	158	156	314
N E.	19	9	8	17	33	21	21	13	17	28	17	19	91	122	213
E.	24	32	38	49	46	41	54	34	35	43	50	28	215	262	477
S E.	23	18	23	13	38	19	21	16	18	27	35	15	141	128	269
S.	10	6	15	11	30	10	4	9	15	21	23	20	95	79	174
S W.	71	80	70	92	81	76	77	80	53	116	94	66	497	502	999
W.	273	259	292	361	282	413	481	415	395	305	319	253	1701	2317	4048
N W.	137	123	164	140	155	145	183	235	156	200	214	181	1019	1014	2033
Calm Sky (a)	677	607	505	377	379	363	281	269	305	412	478	616	3325	1974	5299
Clear Sky (a)	185	167	301	272	364	283	312	362	312	263	135	132	1183	1935	3118
Means including (a)	144	131	143	136	144	140	146	146	140	146	140	139	812	852	1694
Means excluding (a)	72	67	78	88	87	94	100	104	94	98	98	76	490	570	1066

TABLE LXX.

Ratios shewing for each month separately as well as for the winter, summer, and year, the relative frequency of the several upper currents, including the cases of calm sky and clear sky, being the numbers in Table LXIX. expressed in terms of the means in the lowest line but one in the same table.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Winter.	Summer.	Year.
N.	0.13	0.09	0.08	0.18	0.18	0.17	0.18	0.19	0.18	0.31	0.24	0.27	0.19	0.18	0.19
N E.	0.13	0.07	0.06	0.13	0.23	0.15	0.14	0.09	0.12	0.19	0.12	0.07	0.11	0.14	0.13
E.	0.17	0.24	0.27	0.36	0.32	0.32	0.37	0.23	0.25	0.29	0.36	0.20	0.26	0.31	0.28
S E.	0.16	0.11	0.16	0.10	0.26	0.14	0.16	0.11	0.13	0.18	0.25	0.11	0.17	0.15	0.16
S.	0.07	0.05	0.10	0.08	0.21	0.07	0.03	0.06	0.11	0.11	0.17	0.14	0.11	0.09	0.10
S W.	0.49	0.61	0.49	0.68	0.59	0.54	0.53	0.55	0.66	0.79	0.67	0.48	0.59	0.59	0.59
W.	1.90	1.97	2.01	2.66	1.96	2.95	3.29	2.81	2.82	2.69	2.28	1.83	2.02	2.75	2.39
N W.	0.95	0.91	1.15	1.03	1.08	1.04	1.25	1.61	1.11	1.37	1.53	1.30	1.21	1.19	1.20
Calm Sky.	4.71	4.62	3.54	2.78	2.61	2.60	1.92	1.84	2.17	2.82	3.42	4.65	3.95	2.32	3.13
Clear Sky.	1.20	1.27	2.11	2.63	2.63	2.62	2.13	2.48	2.44	1.80	0.97	0.95	1.40	2.27	1.84

TABLE LXXI.

Ratios shewing for each month separately, as well as for the two half-years and year, the relative frequency of the several upper currents, excluding the cases of calm sky and clear sky, being the numbers in Table LXIX. expressed in terms of the means in the lowest line of that table.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Winter.	Summer.	Year.
N.	0.25	0.18	0.15	0.28	0.30	0.26	0.25	0.27	0.27	0.46	0.34	0.50	0.32	0.27	0.29
N E.	0.26	0.13	0.10	0.19	0.38	0.22	0.19	0.12	0.18	0.28	0.17	0.13	0.19	0.21	0.26
E.	0.33	0.47	0.49	0.55	0.53	0.47	0.50	0.33	0.37	0.44	0.51	0.37	0.44	0.46	0.45
S E.	0.32	0.27	0.30	0.15	0.44	0.20	0.22	0.15	0.19	0.27	0.36	0.23	0.29	0.22	0.25
S.	0.14	0.09	0.19	0.12	0.35	0.11	0.04	0.09	0.16	0.21	0.23	0.26	0.19	0.14	0.16
S W.	0.99	1.19	0.90	1.01	0.97	0.81	0.71	0.77	0.98	1.18	0.96	0.80	1.02	0.87	0.94
W.	3.80	3.81	3.76	3.08	3.25	4.39	4.42	4.60	4.18	3.11	3.25	3.31	3.17	4.07	3.80
N W.	1.91	1.82	2.11	1.58	1.79	1.54	1.68	2.27	1.65	2.04	2.18	2.37	2.08	1.76	1.91

TABLE LXXII. Comparison of the half-yearly and yearly ratios in Tables LXX and LXXI, with the ratios derived in a similar manner from the observations made at 8 a. m., 2 p. m., and 4 p. m., as well as those derived from the observations at 10 p. m., midnight, and 6 a. m.

	INCLUDING CALM SKY AND CLEAR SKY.						EXCLUDING CALM SKY AND CLEAR SKY.					
	S. A. M., 2 P. M. and 4 P. M.		10 P. M., MID., and 6 A. M.		Six Hours.		S. A. M., 2 P. M. and 4 P. M.		10 P. M., MID., and 6 A. M.		Six Hours.	
	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.	Winter.	Summer.	Year.
N.	0.25	0.24	0.12	0.13	0.13	0.19	0.18	0.19	0.19	0.28	0.27	0.29
N. E.	0.17	0.21	0.19	0.08	0.06	0.11	0.14	0.13	0.21	0.17	0.15	0.20
E.	0.41	0.43	0.42	0.10	0.18	0.14	0.26	0.31	0.28	0.31	0.41	0.37
S. E.	0.24	0.21	0.23	0.09	0.09	0.17	0.15	0.16	0.49	0.48	0.48	0.45
S.	0.16	0.12	0.14	0.06	0.06	0.11	0.09	0.10	0.29	0.24	0.26	0.25
S. W.	0.31	0.83	0.87	0.27	0.34	0.31	0.59	0.59	0.19	0.14	0.17	0.16
W.	2.92	3.63	3.28	1.11	1.86	1.49	2.02	2.75	1.09	0.93	1.01	0.87
N. W.	1.57	1.49	1.53	0.84	0.89	0.87	1.21	1.19	3.52	4.06	3.80	3.80
Calm sky.	2.50	1.43	1.96	5.41	3.22	4.31	3.35	2.32	1.90	1.65	1.78	1.91
Clear sky.	0.87	1.40	1.14	1.94	3.15	2.55	1.40	2.27	1.90	1.65	1.78	1.91

TABLE LXXIII.

	INCLUDING CALM SKY AND CLEAR SKY.					
	S. A. M., 2 P. M. and 4 P. M.		10 P. M., MID., and 6 A. M.		Six Hours.	
	Winter.	Summer.	Year.	Winter.	Summer.	Year.
N.	0.30	0.27	0.28	0.37	0.28	0.32
N. E.	0.21	0.23	0.22	0.13	0.17	0.15
E.	0.49	0.48	0.48	0.31	0.41	0.37
S. E.	0.29	0.24	0.26	0.29	0.19	0.23
S.	0.19	0.14	0.17	0.19	0.14	0.16
S. W.	1.09	0.93	1.01	0.82	0.76	0.79
W.	3.52	4.06	3.80	3.34	4.10	3.79
N. W.	1.90	1.65	1.78	2.54	1.96	2.20

TABLE LXXIV.

Ratios showing the annual distribution of each upper wind, and comparing the frequency of each wind in the six winter months, with its frequency in the six summer months.

	Ratios comparing Winter with Summer.																							
	January.		February.		March.		April.		May.		June.		July.		August.		Sept.		October.		Nov.		Dec.	
	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .	2 nd , 4 th & 6 th .	10 th , 12 th & 18 th .
N.	0.68	0.49	0.46	1.00	0.98	0.93	1.00	1.04	1.00	1.07	1.28	1.48	1.07	0.97	1.03									
N. E.	1.06	0.55	0.45	1.00	1.84	1.20	1.14	0.71	0.97	1.54	0.98	0.58	0.82	0.57	0.76									
E.	0.39	0.87	0.94	1.28	1.14	1.12	1.31	0.83	0.89	1.05	1.27	0.72	0.95	0.56	0.83									
S. E.	1.01	0.87	1.02	0.61	1.67	0.86	1.04	0.69	0.81	1.17	1.58	0.68	1.13	1.09	1.11									
S.	0.68	0.45	1.02	0.79	2.04	0.70	0.26	0.60	0.91	1.10	1.61	1.40	1.20	1.05	1.21									
S. W.	0.84	1.03	0.83	1.15	0.99	0.92	0.89	0.93	1.12	1.35	1.14	0.81	1.09	0.79	1.00									
W.	0.80	0.83	0.86	1.11	0.82	1.24	1.38	1.19	1.18	0.88	0.96	0.77	0.80	0.60	0.73									
N. W.	0.80	0.78	0.96	0.86	0.90	0.82	1.04	1.34	0.93	1.14	1.28	1.09	1.06	0.95	1.02									
Calm sky.	1.50	1.47	1.13	0.88	0.84	0.83	0.61	0.59	0.69	0.90	1.09	1.48	1.75	1.68	1.70									
Clear sky.	0.70	0.69	1.15	1.09	1.38	1.10	1.16	1.35	1.33	0.98	0.53	0.52	0.62	0.61	0.62									

Year. 314, 213, 477, 269, 174, 999, 4048, 2033, 5299, 8118, 1694, 1066, Year. 0.19, 0.13, 0.28, 0.16, 0.10, 0.59, 2.39, 1.20, 3.13, 1.84, Year. 0.29, 0.26, 0.45, 0.25, 0.16, 0.94, 3.80, 1.91

WINDS IN THE UPPER STRATA.

TABLE LXXV.

Absolute number of the several upper currents at each of the six observation hours.

	G. A. M.	S. A. M.	2 P. M.	4 P. M.	10 P. M.	Mid.	G. A. M. 10 P. M. Mid.	S. A. M. 2 P. M. 4 P. M.	20 th 30 th 40 th 50 th 60 th 70 th 80 th 90 th 100 th
N.	45	69	68	71	31	30	106	20 th	52
N. E.	24	50	61	52	12	14	50	163	35
E.	77	129	120	107	20	24	121	356	79
S. E.	47	72	63	57	10	20	77	192	45
S.	27	42	45	34	12	14	53	121	29
S. W.	137	229	274	236	65	58	260	739	166
W.	532	787	974	1033	372	350	1254	2794	675
N. W.	273	381	470	453	246	210	729	1304	339
Calm sky (a)	1167	662	509	497	1216	1247	3630	1669	883
Clear sky (a)	497	412	265	294	818	832	2147	971	520
Means including (a)	283	283	285	283	280	280	843	852	282
Means excluding (a)	145	220	259	255	96	90	331	735	178

TABLE LXXVII.

Ratios showing for each hour separately the relative frequency of the different upper winds, excluding the cases when the sky was calm and when it was clear.

	G. A. M.	S. A. M.	2 P. M.	4 P. M.	10 P. M.	Mid.	G. A. M. 10 P. M. Mid.	S. A. M. 2 P. M. 4 P. M.
N. E.	0.31	0.31	0.26	0.28	0.32	0.33	0.32	0.28
E.	0.17	0.23	0.23	0.20	0.13	0.16	0.15	0.22
S. E.	0.33	0.39	0.46	0.42	0.21	0.27	0.37	0.48
S.	0.32	0.33	0.24	0.22	0.10	0.22	0.23	0.26
S. W.	0.19	0.19	0.17	0.13	0.13	0.16	0.16	0.16
W.	0.94	1.04	1.06	0.92	0.68	0.64	0.79	1.01
N. W.	3.95	3.58	3.75	4.04	3.87	3.89	3.79	3.80
Means	1.88	1.73	1.81	1.77	2.56	2.33	2.29	1.78

TABLE LXXXVI.

Ratios showing for each hour separately the relative frequency of the different upper winds, including the cases of calm and clear sky.

	G. A. M.	S. A. M.	2 P. M.	4 P. M.	10 P. M.	Mid.	G. A. M. 10 P. M. Mid.	S. A. M. 2 P. M. 4 P. M.
N.	0.16	0.24	0.24	0.25	0.11	0.11	0.13	0.24
N. E.	0.69	0.18	0.21	0.18	0.04	0.05	0.06	0.19
E.	0.27	0.46	0.42	0.38	0.07	0.09	0.14	0.42
S. E.	0.17	0.25	0.22	0.20	0.04	0.07	0.09	0.23
S.	0.10	0.15	0.16	0.12	0.04	0.05	0.06	0.14
S. W.	0.48	0.81	0.96	0.83	0.23	0.21	0.31	0.87
W.	1.88	2.78	3.42	3.04	1.33	1.25	1.49	3.28
N. W.	0.97	1.34	1.65	1.60	0.88	0.75	0.87	1.53
Calm sky.	4.13	2.34	1.79	1.75	4.34	4.46	4.31	1.96
Clear sky.	1.70	1.45	0.93	1.04	2.92	2.97	2.55	1.14

TABLE LXXXVIII.

Ratios showing the diurnal distribution of each upper wind, and comparing their frequency at the hours 2^h, 4^h, and 10^h, with their frequency at the hours 10^h, midnight, and 18^h.

	G. A. M.	S. A. M.	2 P. M.	4 P. M.	10 P. M.	Mid.	Ratios comparing 2, 4, & 10 ^h with 10 ^h , mid., & 18 ^h .
N.	0.86	1.32	1.30	1.35	0.56	0.57	2.02
N. E.	0.08	1.41	1.72	1.47	0.34	0.39	4.00
E.	0.97	1.62	1.51	1.35	0.25	0.30	3.95
S. E.	1.05	1.61	1.41	1.27	0.22	0.45	2.52
S.	0.93	1.45	1.55	1.17	0.41	0.48	2.44
S. W.	0.82	1.38	1.65	1.42	0.39	0.35	3.33
W.	0.79	1.17	1.44	1.53	1.55	0.52	2.63
N. W.	0.81	1.12	1.39	1.34	0.73	0.62	1.87
Calm sky.	1.32	0.75	0.58	0.56	1.38	1.41	0.46
Clear sky.	0.96	0.73	0.51	0.57	1.57	1.60	0.45

TABLE LXXXII.

Comparative frequency of the several winds on the days in any part of which rain fell during the winter half-year, for the years 1853-57, 1858-62, and 1853-1862.

Class I. Light rain not exceeding 0.100 of an inch.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Caln.
On days of light rain (1)	170	100	138	207	185	114	71	93	126	179	299	346	298	176	183	237	245
Absolute duration of each wind in hours	132	75	136	244	283	117	82	57	75	202	260	350	357	394	203	198	196
On days with and without rain (2)	362	175	274	451	468	251	153	190	201	381	559	696	655	570	386	435	441
Absolute duration of each wind in hours	950	952	1051	1153	584	406	396	624	1046	1789	2500	2309	1850	1661	1758	1400	1400
Relative duration of each wind, or ratio of (1) to (2)	362	175	274	451	468	251	153	190	201	381	559	696	655	570	386	435	441
Ratio of numbers in (3) to their respective means for all winds (4)	0.83	0.67	0.92	1.26	1.02	1.24	1.12	1.50	1.29	1.69	1.07	0.88	0.82	0.61	0.70	0.86	1.12
	0.62	0.49	0.80	1.16	1.22	1.24	1.51	1.01	1.18	1.24	0.96	0.97	0.99	1.19	0.66	0.76	1.01
	0.72	0.58	0.86	1.21	1.13	1.24	1.29	1.26	1.24	1.16	1.02	0.92	0.90	0.92	0.68	0.81	1.07

Class II. Moderate rain (more than 0.100 and less than 0.500 of an inch).

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Caln.
On days of moderate rain (1)	40	75	94	241	320	98	78	72	99	107	126	121	97	91	71	49	106
Absolute duration of each wind in hours	89	76	106	311	363	135	66	72	66	157	186	171	78	42	82	70	140
On days with and without rain (2)	129	151	200	552	683	233	144	144	144	195	264	312	292	175	133	153	246
Absolute duration of each wind in hours	950	952	1051	1153	584	406	396	624	1046	1789	2500	2309	1850	1661	1758	1400	1400
Relative duration of each wind, or ratio of (1) to (2)	362	175	274	451	468	251	153	190	201	381	559	696	655	570	386	435	441
Ratio of numbers in (3) to their respective means for all winds (4)	0.28	0.72	0.90	2.08	2.52	1.52	1.74	1.65	1.43	0.92	0.64	0.43	0.38	0.44	0.39	0.25	0.69
	0.54	0.61	0.80	1.90	2.00	1.84	1.55	1.64	1.33	1.23	0.88	0.61	0.28	0.16	0.34	0.34	0.92
	0.42	0.37	0.85	2.00	2.24	1.70	1.55	1.64	1.37	1.09	0.77	0.53	0.32	0.29	0.37	0.30	0.80

CLASS III. Rain 0.500 of an inch and upwards.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.	
On days of heavy rain. (1)	1853-1857	3	11	19	96	136	54	21	16	12	26	35	27	14	11	5	5	25
	1858-1862	37	38	46	134	151	29	7	11	7	13	15	50	23	12	17	9	
	1853-1862	40	49	65	250	287	83	28	27	19	39	50	57	37	23	17	22	34
On days with and without rain. (2)	1853-1857	1310	950	952	16	153	584	406	396	624	1046	1789	2500	2309	1850	1681	1758	1400
	1858-1862	1827	955	1062	131	1455	589	340	353	398	1020	1689	2241	2254	2058	1936	1642	1216
	1853-1862	2637	1905	2014	2362	2608	1173	746	749	1022	2066	3478	4741	4563	3908	3597	3400	2616
Relative duration of each wind, or ratios of (1) to (2). (3)	1853-1857	.002	.012	.020	.091	.118	.092	.052	.040	.019	.025	.020	.011	.006	.006	.003	.003	.018
	1858-1862	.028	.040	.043	.117	.104	.049	.021	.031	.018	.013	.009	.013	.010	.006	.006	.010	.007
	1853-1862	.015	.026	.032	.106	.110	.071	.038	.036	.019	.019	.014	.012	.008	.006	.005	.006	.013
Ratios of the numbers in (3) to their respective means for all winds. (4)	1853-1857	0.06	0.38	0.63	2.87	3.73	2.91	1.64	1.26	0.60	0.79	0.63	0.35	0.19	0.19	0.10	0.09	0.37
	1858-1862	0.91	1.30	1.39	3.79	3.37	1.59	0.68	1.00	0.58	0.42	0.29	0.42	0.32	0.19	0.19	0.32	0.23
	1853-1862	0.48	0.82	1.01	3.35	3.48	2.25	1.20	1.14	0.60	0.60	0.44	0.38	0.29	0.19	0.16	0.19	0.41

Rain without reference to amount.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.	
On days of rain. (1)	1853-1857	213	186	251	544	641	296	170	181	237	312	460	494	409	278	259	291	376
	1858-1862	258	189	288	709	707	281	155	140	148	372	461	551	458	448	297	285	345
	1853-1862	471	375	539	1253	1438	547	323	321	385	684	921	1045	867	726	556	576	721
On days with and without rain. (2)	1853-1857	1310	950	952	1651	1153	584	406	396	624	1046	1789	2500	2309	1850	1681	1758	1400
	1858-1862	1327	955	1062	1311	1455	589	340	353	398	1020	1689	2241	2254	2058	1936	1642	1216
	1853-1862	2637	1905	2014	2362	2608	1173	746	749	1022	2066	3478	4741	4563	3908	3597	3400	2616
Relative duration of each wind, or ratios of (1) to (2). (3)	1853-1857	.163	.196	.264	.518	.536	.455	.419	.457	.380	.298	.257	.198	.177	.150	.156	.166	.269
	1858-1862	.194	.198	.271	.511	.548	.477	.456	.397	.372	.365	.273	.246	.203	.218	.153	.174	.284
	1853-1862	.179	.197	.208	.530	.551	.466	.436	.429	.377	.331	.265	.220	.190	.186	.155	.169	.276
Ratios of the numbers in (3) to their respective means for all winds. (4)	1853-1857	0.55	0.66	0.88	1.73	1.86	1.52	1.40	1.53	1.27	1.00	0.86	0.66	0.59	0.50	0.52	0.56	0.90
	1858-1862	0.61	0.63	0.86	1.71	1.74	1.51	1.44	1.26	1.18	1.15	0.86	0.78	0.64	0.69	0.48	0.55	0.90
	1853-1862	0.58	0.64	0.87	1.72	1.79	1.52	1.42	1.40	1.23	1.08	0.86	0.72	0.62	0.60	0.50	0.55	0.90

respective means for all winds (4)

TABLE LXXXIII.

Comparative frequency of the several winds on the days in any part of which rain fell during the summer half-year, for the years 1853-57, 1858-62, and 1853-1862.

Class I. Light rain not exceeding 0.100 of an inch.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calm.	
On days of light rain.	235	156	198	325	306	214	138	139	299	391	296	264	274	264	263	312	359	
(1)	280	110	202	347	482	155	100	115	265	421	316	334	372	416	549	428	256	
Absolute duration of each wind in hours.	515	266	400	672	878	369	238	254	444	812	600	538	646	680	812	710	615	
On days with and without rain.	1580	1048	980	1362	1784	1097	822	911	1398	1854	1245	715	889	1202	1434	1905	1575	
(2)	1858	1862	1284	825	893	1681	2111	3622	6111	724	1352	1721	1005	791	1153	1554	1904	2068
Absolute duration of each wind, or ratios of (1) to (2).	1853-1862	2873	1873	3043	3805	2029	1433	1635	2750	3575	2250	1506	2042	2736	3338	3973	2926	
Relative duration of each wind, or ratios of (1) to (2).	1853-1857	148	149	202	229	222	195	168	133	171	211	233	308	220	183	164	228	
(3)	1858-1862	218	133	226	206	228	166	164	150	152	245	308	422	323	268	288	207	
(4)	1853-1862	179	142	221	221	225	182	166	155	161	227	257	357	316	247	243	210	
Ratios of the numbers in (3) to their respective means for all winds.	1853-1857	0.72	0.73	0.89	1.17	1.08	0.95	0.82	0.75	0.84	1.03	1.14	1.39	1.51	1.07	0.80	0.80	
(1)	1858-1862	0.95	0.58	0.59	0.90	0.39	0.72	0.71	0.69	0.66	1.07	1.34	1.84	1.41	1.17	1.25	0.90	
(2)	1853-1862	0.82	0.65	0.98	1.02	1.03	0.84	0.76	0.71	0.74	1.04	1.23	1.64	1.45	1.14	1.12	0.85	

Class II. Moderate rain (more than 0.100 and less than 0.200 of an inch).

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calm.
On days of moderate rain.	163	157	183	291	297	162	125	130	220	292	230	135	125	166	191	195	150
(1)	1858-1862	138	81	153	321	507	140	63	78	118	192	172	124	138	158	185	179
Absolute duration of each wind in hours.	301	238	336	582	374	308	188	208	338	484	392	250	263	324	376	374	289
On days with and without rain.	1580	1048	980	1362	1784	1097	822	911	1398	1854	1245	715	889	1202	1434	1905	1575
(2)	1858	1862	1284	825	893	1681	2111	3622	6111	724	1352	1721	1005	791	1153	1554	1904
Absolute duration of each wind, or ratios of (1) to (2).	1853-1862	2873	1873	3043	3805	2029	1433	1635	2750	3575	2250	1506	2042	2756	3338	3973	2926
Relative duration of each wind, or ratios of (1) to (2).	1853-1857	102	130	187	192	190	148	152	143	157	177	189	141	138	133	102	405
(3)	1858-1862	108	698	171	191	145	137	103	108	687	112	171	157	120	102	997	106
(4)	1853-1862	105	427	179	191	147	332	131	127	123	133	174	172	129	118	112	694
Ratios of the numbers in (3) to their respective means for all winds.	1853-1857	0.69	1.01	1.27	1.30	1.01	1.00	1.03	0.97	1.06	1.06	1.20	1.28	0.95	0.93	0.90	0.69
(1)	1858-1862	0.87	0.79	1.37	1.53	1.16	1.26	0.83	0.87	0.70	0.90	1.37	1.26	0.96	0.82	0.78	0.70
(2)	1853-1862	0.77	0.93	1.31	1.40	1.08	1.12	0.96	0.93	0.90	0.99	1.28	1.26	0.95	0.87	0.83	0.69

CLASS III. Rain 0.500 of an inch and upwards.

	K.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.	
On days of heavy rain. (1)	1853-1857	99	112	165	248	102	47	72	59	107	89	19	40	69	64	73	64	
	1858-1862	62	60	83	284	220	39	50	22	49	111	115	46	52	49	47	69	55
	1853-1862	152	108	195	449	438	161	97	94	108	218	204	65	92	118	111	142	59
On days with and without rain. (2)	1853-1857	1589	1048	980	1362	1784	1097	822	911	1398	1854	1245	715	889	1202	1434	1905	1575
	1858-1862	1284	825	893	1681	2111	932	611	724	1352	1721	1005	791	1153	1554	1904	2068	1351
	1853-1862	2873	1873	1873	3043	3895	2029	1433	1635	2750	3575	2250	1506	2042	2756	3338	3473	2926
Relative duration of each wind, or ratios of (1) to (2). (3)	1853-1857	057	046	114	121	122	063	057	079	042	058	071	027	045	057	045	038	041
	1858-1862	048	073	093	169	104	063	082	030	036	004	114	068	045	032	025	033	026
	1853-1862	053	058	104	148	112	079	068	058	039	001	091	043	045	043	033	036	034
Ratios of the numbers in (3) to their respective means for all winds. (4)	1853-1857	087	076	174	185	186	142	087	121	064	089	108	041	069	087	069	058	063
	1858-1862	075	113	144	262	161	098	127	047	056	039	177	030	070	050	039	051	040
	1853-1862	082	089	160	228	172	121	105	089	060	034	140	065	069	036	051	055	052

Rain without reference to amount.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.	
On days of rain. (1)	1853-1857	488	361	493	751	881	478	310	341	518	790	509	358	439	499	518	580	573
	1858-1862	480	251	438	952	1009	360	213	215	372	724	597	504	562	623	781	676	430
	1853-1862	908	612	931	1703	1890	838	523	536	890	1514	1196	862	1001	1122	1299	1256	1063
On days with and without rain. (2)	1853-1857	1589	1048	980	1362	1784	1097	822	911	1398	1854	1245	715	889	1202	1434	1905	1575
	1858-1862	1284	825	893	1681	2111	932	611	724	1352	1721	1005	791	1153	1554	1904	2068	1351
	1853-1862	2873	1873	1873	3043	3895	2029	1433	1635	2750	3575	2250	1506	2042	2756	3338	3473	2926
Relative duration of each wind, or ratios of (1) to (2). (3)	1853-1857	306	344	508	551	494	436	377	374	371	426	481	501	494	415	361	304	364
	1858-1862	374	304	490	566	478	386	349	297	275	421	594	637	487	401	410	327	318
	1853-1862	337	327	497	560	485	413	365	340	324	443	532	572	490	407	389	316	343
Ratios of the numbers in (3) to their respective means for all winds. (4)	1853-1857	073	082	120	132	118	104	090	089	089	102	115	120	118	089	080	073	087
	1858-1862	089	073	117	135	114	092	083	071	066	101	142	152	116	096	038	078	076
	1853-1862	081	078	119	134	116	099	087	081	077	101	127	137	117	097	033	075	082

TORONTO METEOROLOGICAL RESULTS.

TABLE LXXXIV.
Comparative frequency of the several winds on the days in any part of which rain fell during the year, for the years 1853-1857, 1858-62,
and 1853-1862.

CLASS I. Light rain not exceeding 0.100 of an inch.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.W.	S.W.W.	W.	W.N.W.	N.W.	N.N.W.	Calms	
On days of light rain.	1853-1857	405	256	336	532	581	328	209	232	365	570	550	440	446	549	604	
	1858-1862	412	185	338	591	765	272	182	172	280	623	570	684	729	810	752	432
	1853-1862	817	441	674	1123	1346	600	391	404	645	1193	1159	1234	1301	1250	1198	1056
On days with and without rain.	1853-1857	2899	1932	2413	2937	1081	1228	1307	2022	2000	3034	3215	3198	3052	3695	3663	2975
	1858-1862	2611	1780	1953	2992	3566	1521	951	1077	1730	2741	2694	3032	3407	3612	3840	3710
	1853-1862	5510	3778	3887	5405	6503	3202	2179	2384	3772	5641	3728	6247	6605	6664	6935	5542
Relative duration of each wind, or ratios of (1) to (2).	1853-1857	1.40	1.28	1.74	2.20	1.98	1.05	1.70	1.78	1.81	1.97	1.01	1.71	1.79	1.44	1.44	1.50
	1858-1862	1.58	1.04	1.73	1.98	2.15	1.79	1.91	1.60	2.27	2.12	2.26	2.14	2.24	1.96	1.69	1.76
	1853-1862	1.48	1.17	1.73	2.08	2.07	1.87	1.79	1.69	1.71	2.11	2.02	1.98	1.97	1.88	1.73	1.59
Ratios of the numbers in (3) to their respective means for all winds.	1853-1857	0.80	0.73	1.00	1.26	1.14	1.12	0.97	1.02	1.04	1.13	1.11	0.98	1.03	0.83	0.82	0.86
	1858-1862	0.84	0.56	0.93	1.05	1.15	0.96	1.02	0.85	0.80	1.21	1.13	1.21	1.14	1.20	1.05	0.90
	1853-1862	0.82	0.65	0.96	1.15	1.14	1.02	0.99	0.93	0.94	1.17	1.12	1.09	1.09	1.04	0.95	0.88

CLASS II. Moderate rain (more than 0.100 and less than 0.500 of an inch.)

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.W.	S.W.W.	W.	W.N.W.	N.W.	N.N.W.	Calms	
On days of moderate rain.	1853-1857	203	277	502	587	260	203	202	319	399	346	256	222	257	262	244	256
	1858-1862	227	157	259	632	670	281	129	150	184	349	358	295	216	200	267	249
	1853-1862	430	380	536	1131	1257	541	332	352	503	748	704	551	438	457	529	493
On days with and without rain.	1853-1857	2899	1932	2413	2937	1081	1228	1307	2022	2000	3034	3215	3198	3052	3695	3663	2975
	1858-1862	2611	1780	1953	2992	3566	1521	951	1077	1730	2741	2694	3032	3407	3612	3840	3710
	1853-1862	5510	3778	3887	5405	6503	3202	2179	2384	3772	5641	3728	6247	6605	6664	6935	5542
Relative duration of each wind, or ratios of (1) to (2).	1853-1857	0.70	1.16	1.43	2.08	2.00	1.65	1.54	1.58	1.38	1.14	0.80	0.69	0.84	0.85	0.67	0.86
	1858-1862	0.87	0.88	1.32	2.11	1.88	1.85	1.36	1.39	1.05	1.27	1.33	0.97	0.63	0.55	0.70	0.67
	1853-1862	0.78	1.03	1.36	2.10	1.93	1.69	1.52	1.48	1.33	1.23	0.88	0.66	0.69	0.76	0.67	0.97
Ratios of the numbers in (3) to their respective means for all winds.	1853-1857	0.57	0.94	1.16	1.69	1.62	1.26	1.34	1.25	1.28	1.12	0.93	0.56	0.58	0.60	0.54	0.70
	1858-1862	0.74	0.75	1.13	1.80	1.60	1.58	1.16	1.19	0.90	1.08	1.14	0.83	0.54	0.47	0.60	0.57
	1853-1862	0.65	0.86	1.15	1.61	1.41	1.26	1.23	1.11	1.11	1.02	0.73	0.55	0.57	0.63	0.56	0.81

TORONTO METEOROLOGICAL RESULTS.

CLASS III. Rain 0.500 of an inch and upwards.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.S.W.	N.W.	N.N.W.	Calms
On days of heavy rain.	98	59	131	261	354	156	68	88	71	133	124	46	54	80	69	78	89
(1)	99	98	129	438	371	88	57	33	56	124	130	76	75	61	59	86	44
On days with and without rain.	192	137	260	699	725	244	125	121	127	257	234	122	129	141	128	164	163
(2)	1998	1998	1932	2413	2937	1681	1228	1307	2022	2900	3034	3215	3198	3052	3095	3663	2975
Relative duration of each wind, or ratios of (1) to (2).	0.32	0.80	1.08	1.21	0.93	0.55	0.67	0.95	0.46	0.41	0.14	0.17	0.25	0.22	0.22	0.21	0.30
(3)	0.38	0.55	0.66	1.40	1.04	0.58	0.60	0.31	0.32	0.45	0.48	0.25	0.22	0.17	0.15	0.23	0.17
Ratios of the numbers in (3) to their respective means for all winds.	0.81	1.17	1.40	3.09	2.20	1.23	1.27	0.66	0.68	0.95	1.02	0.53	0.47	0.36	0.32	0.49	0.36
(4)	0.73	0.87	1.39	2.68	2.33	1.58	1.19	1.06	0.71	0.96	0.92	0.40	0.42	0.44	0.37	0.46	0.50

Rain without reference to amount.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.S.W.	N.W.	N.N.W.	Calms
On days of rain.	701	547	744	1295	1522	744	430	522	755	1102	1059	852	848	777	777	871	949
(1)	728	440	726	1661	1806	641	368	355	520	1696	1658	1655	1029	1071	1078	961	775
On days with and without rain.	1439	987	1470	2956	3328	1385	848	877	1275	2198	2117	1907	1808	1848	1855	1832	1724
(2)	2899	1998	1932	2413	2937	1681	1228	1307	2022	2900	3034	3215	3198	3052	3095	3663	2975
Relative duration of each wind, or ratios of (1) to (2).	0.24	0.27	0.37	0.41	0.44	0.24	0.35	0.36	0.37	0.49	0.48	0.44	0.32	0.31	0.31	0.26	0.26
(3)	0.28	0.24	0.31	0.35	0.36	0.21	0.27	0.28	0.29	0.40	0.39	0.37	0.28	0.29	0.28	0.21	0.21
Ratios of the numbers in (3) to their respective means for all winds.	0.70	0.79	1.11	1.55	1.50	1.28	1.13	1.15	1.08	1.10	1.01	0.77	0.77	0.74	0.72	0.69	0.92
(4)	0.81	0.70	1.06	1.58	1.44	1.20	1.10	0.94	0.84	1.14	1.12	0.99	0.85	0.84	0.80	0.74	0.86
	0.75	0.75	1.08	1.57	1.47	1.24	1.11	1.05	0.97	1.12	1.06	0.87	0.81	0.79	0.76	0.71	0.89

TABLE LXXV.

Comparative frequency of the several winds on the days in which snow fell during the year, for the years 1852-57, 1858-62, and 1853-62.

CLASS I. Light snow not exceeding one inch.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.E.E.	S.	S.S.W.	S.W.	W.	W.S.W.	N.W.	N.N.W.	Calms.	
On days of light snow.	464	299	274	151	168	169	105	84	120	168	486	806	835	614	586	622	290
(1)	471	275	182	227	230	163	69	105	111	211	388	862	959	947	724	644	252
On days with and without snow.	935	574	457	378	398	272	174	189	231	379	874	1668	1794	1561	1319	1266	342
(2)	2899	1998	1932	2413	2937	1681	1228	1907	2022	2900	3084	3215	3198	3052	3065	3663	2975
Absolute duration of each wind, or ratios of (1) to (2).	150	112	103	105	101	108	104	105	108	160	251	261	261	201	152	170	667
(3)	154	104	976	1064	1038	1073	1097	1063	1077	144	284	281	281	226	189	174	698
(4)	152	118	1070	1061	1085	1080	1079	1061	1067	153	266	272	234	189	172	698	6985
Relative duration of each wind, or ratios of (1) to (2).	1.20	1.12	1.06	0.47	0.43	0.76	0.61	0.48	0.44	0.43	1.20	1.88	1.96	1.51	1.42	1.27	0.73
(3)	1.10	0.67	0.54	0.46	0.49	0.52	0.69	0.45	0.55	1.03	2.03	2.01	1.87	1.35	1.24	0.70	2.567
(4)	1.29	1.10	0.67	0.54	0.46	0.49	0.52	0.69	0.45	0.43	1.12	1.94	1.99	1.71	1.38	1.26	0.72
Ratios of the numbers in (3) to their respective means for all winds.	1.24	1.11	0.86	0.51	0.45	0.62	0.58	0.58	0.45	0.43	1.12	1.94	1.99	1.71	1.38	1.26	0.72

CLASS II. Moderate snow, more than one inch and less than five inches.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.E.E.	S.	S.S.W.	S.W.	W.	W.S.W.	N.W.	N.N.W.	Calms.	
On days of moderate snow.	143	170	203	121	126	77	74	34	56	87	155	135	145	112	103	214	68
(1)	124	150	206	212	198	58	57	50	36	52	70	104	132	76	123	138	77
On days with and without snow.	267	220	499	333	324	135	101	84	92	139	265	249	297	188	226	332	145
(2)	2899	1998	1932	2413	2937	1681	1228	1907	2022	2900	3084	3215	3198	3052	3065	3663	2975
Absolute duration of each wind, or ratios of (1) to (2).	151	107	105	106	106	104	104	104	104	104	104	104	104	104	104	104	104
(3)	151	107	105	106	106	104	104	104	104	104	104	104	104	104	104	104	104
(4)	151	107	105	106	106	104	104	104	104	104	104	104	104	104	104	104	104
Relative duration of each wind, or ratios of (1) to (2).	1.20	1.12	1.06	0.47	0.43	0.76	0.61	0.48	0.44	0.43	1.20	1.88	1.96	1.51	1.42	1.27	0.73
(3)	1.10	0.67	0.54	0.46	0.49	0.52	0.69	0.45	0.55	1.03	2.03	2.01	1.87	1.35	1.24	0.70	2.567
(4)	1.29	1.10	0.67	0.54	0.46	0.49	0.52	0.69	0.45	0.43	1.12	1.94	1.99	1.71	1.38	1.26	0.72
Ratios of the numbers in (3) to their respective means for all winds.	1.24	1.11	0.86	0.51	0.45	0.62	0.58	0.58	0.45	0.43	1.12	1.94	1.99	1.71	1.38	1.26	0.72

ratios of the numbers in (3) to their respective means for all winds. (4)

TORONTO METEOROLOGICAL RESULTS.

CLASS III. Heavy Snow, five inches and upwards.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.S.W.	N.W.	N.N.W.	Calms.
On days of heavy snow. (1)	1853-1857 38	44	42	63	19	2	1	3	5	6	14	10	12	13	10	9	7
On days with and without snow. (2)	1853-1857 2899	1998	1932	2413	2937	1681	1228	1307	2022	2900	3034	3215	3198	3052	3053	3663	2975
Absolute duration of each wind in hours. (3)	1858-1862 2611	1780	1955	2992	3566	1521	951	1077	1750	2741	2694	3032	3407	3612	3849	3710	2507
Relative duration of each wind, or ratios of (1) to (2).	1853-1862 5519	3778	3887	5405	6503	3202	2179	2384	3772	5641	5728	6247	6605	6664	6935	7375	5342
Ratios of the numbers in (3) to their respective means for all winds. (4)	1853-1857 0.13	0.22	0.23	0.17	0.21	0.11	0.02	0.01	0.02	0.02	0.02	0.04	0.04	0.04	0.04	0.06	0.02
	1858-1862 0.08	0.12	0.19	0.17	0.04	0.03	0.03	0.00	0.02	0.06	0.05	0.04	0.02	0.05	0.05	0.05	0.04
	1853-1862 0.11	0.17	0.21	0.19	0.08	0.02	0.02	0.01	0.02	0.04	0.05	0.04	0.03	0.05	0.06	0.06	0.03
	1853-1857 1.59	2.69	2.81	2.08	2.57	1.34	0.25	0.42	0.12	0.24	0.25	0.49	0.49	0.49	0.49	0.73	0.24
	1858-1862 1.17	1.76	2.78	2.49	2.40	0.59	0.44	0.44	0.00	0.29	0.88	0.73	0.59	0.29	0.73	0.73	0.59
	1853-1862 1.44	2.22	2.75	2.22	2.49	1.05	0.26	0.26	0.13	0.26	0.52	0.65	0.52	0.39	0.65	0.78	0.39

Snow without reference to amount.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.S.W.	N.W.	N.N.W.	Calms.
On days of snow. (1)	1853-1857 645	513	521	314	357	265	181	119	179	290	627	955	890	738	702	858	369
On days with and without snow. (2)	1858-1862 616	446	516	491	490	107	99	158	147	269	475	981	1126	1031	865	801	338
Absolute duration of each wind in hours. (3)	1853-1862 1261	939	1037	805	847	432	280	277	326	529	1102	1936	2116	1769	1567	1659	763
Relative duration of each wind, or ratios of (1) to (2).	1853-1857 292	237	270	130	122	158	147	091	089	090	207	298	310	242	227	254	123
	1858-1862 236	251	264	104	137	110	104	147	084	095	176	324	330	385	225	216	132
	1853-1862 229	234	267	149	130	135	128	110	086	094	102	310	320	265	226	225	127
Ratios of the numbers in (3) to their respective means for all winds. (4)	1853-1857 1.17	1.36	1.43	0.69	0.64	0.84	0.78	0.48	0.47	0.48	1.09	1.57	1.64	1.28	1.29	1.24	0.65
	1858-1862 1.22	1.30	1.37	0.83	0.71	0.57	0.54	0.76	0.43	0.51	0.91	1.68	1.71	1.48	1.17	1.12	0.68
	1853-1862 1.20	1.33	1.40	0.78	0.68	0.71	0.67	0.61	0.45	0.49	1.00	1.62	1.67	1.38	1.18	1.18	0.66

TABLE LXXXVI.

Synopsis of the Final Ratios given in Tables LXXXI. to LXXXV., corresponding to the different classes of Rain and Snow.

Rain in the Winter Half-year.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.S.W.	N.W.	N.N.W.	Chim.
1853-57.	Class I.	0.83	0.67	0.92	1.26	1.02	1.12	1.50	1.29	1.09	1.07	0.88	0.82	0.61	0.70	0.86	1.12
	" II.	0.58	0.72	0.90	2.08	2.52	1.74	1.65	1.43	0.93	0.63	0.44	0.35	0.44	0.39	0.25	0.69
	" III.	0.06	0.38	0.63	2.88	3.73	2.91	1.64	1.26	0.80	0.79	0.35	0.19	0.19	0.10	0.09	0.87
	Rain generally	0.55	0.66	0.88	1.73	1.86	1.52	1.40	1.53	1.27	1.00	0.86	0.66	0.59	0.50	0.52	0.56	0.80
1858-62.	Class I.	0.62	0.49	0.80	1.16	1.22	1.24	1.51	1.01	1.17	1.24	0.98	0.99	1.19	0.66	0.76	1.01
	" II.	0.54	0.64	0.80	1.90	2.00	1.84	1.55	1.03	1.33	1.23	0.88	0.61	0.28	0.16	0.34	0.92
	" III.	0.91	1.30	1.39	3.79	3.37	1.59	0.68	1.00	0.58	0.42	0.29	0.42	0.32	0.19	0.19	0.32
	Rain generally	0.61	0.63	0.86	1.71	1.74	1.51	1.44	1.26	1.18	1.15	0.86	0.78	0.64	0.69	0.48	0.55	0.90
1853-62.	Class I.	0.72	0.58	0.86	1.20	1.13	1.24	1.29	1.26	1.24	1.16	1.02	0.92	0.90	0.92	0.67	0.81
	" II.	0.42	0.67	0.84	2.00	2.24	1.70	1.65	1.64	1.37	1.09	0.77	0.53	0.32	0.29	0.37	0.80
	" III.	0.48	0.82	1.01	3.36	3.48	2.25	1.20	1.14	0.60	0.60	0.44	0.38	0.29	0.19	0.16	0.41
	Rain generally	0.58	0.64	0.87	1.72	1.79	1.52	1.42	1.40	1.23	1.08	0.86	0.72	0.62	0.61	0.50	0.55	0.90

Rain in the Summer Half-year.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.S.W.	N.W.	N.N.W.	Chim.
1853-57.	Class I.	0.72	0.73	0.99	1.17	1.08	0.95	0.82	0.75	0.84	1.03	1.14	1.39	1.50	1.08	0.89	0.80
	" II.	0.69	1.01	1.27	1.30	1.01	1.00	1.03	0.97	1.06	1.06	1.20	1.28	0.95	0.93	0.90	0.69
	" III.	0.87	0.70	1.74	1.85	1.86	1.42	0.87	1.21	0.64	0.89	1.08	0.41	0.69	0.87	0.69	0.58
	Rain generally	0.73	0.82	1.20	1.32	1.18	1.04	0.90	0.90	0.89	1.02	1.15	1.20	1.18	0.99	0.86	0.73
1858-62.	Class I.	0.95	0.58	0.98	0.90	0.99	0.72	0.71	0.69	0.66	1.97	1.34	1.84	1.41	1.17	1.25	0.90
	" II.	0.87	0.79	1.37	1.53	1.16	1.26	0.83	0.87	0.70	0.90	1.37	1.26	0.96	0.82	0.78	0.70
	" III.	0.75	1.13	1.44	2.62	1.61	0.93	1.27	0.47	0.56	0.99	1.77	0.90	0.70	0.50	0.39	0.51
	Rain generally	0.89	0.73	1.17	1.35	1.14	0.92	0.83	0.71	0.66	1.01	1.42	1.52	1.16	0.96	0.98	0.78
1853-62.	Class I.	0.82	0.65	0.98	1.02	1.03	0.84	0.76	0.71	0.74	1.04	1.23	1.64	1.45	1.13	1.12	0.86
	" II.	0.77	0.93	1.31	1.40	1.03	1.12	0.96	0.93	0.90	0.99	1.28	1.26	0.95	0.87	0.83	0.69
	" III.	0.82	0.89	1.60	2.58	1.72	1.21	1.05	0.69	0.60	0.94	1.40	0.66	0.69	0.66	0.51	0.53
	Rain generally	0.81	0.78	1.19	1.34	1.16	0.99	0.87	0.81	0.67	1.01	1.27	1.37	1.17	0.97	0.93	0.75

TORONTO METEOROLOGICAL RESULTS.

Rain in the whole year.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.	
{ " I " II " III Rain generally	0.80 0.73 0.57 0.84 0.70	1.00 1.16 1.40 1.11	1.14 1.26 2.49 1.55	1.12 1.34 1.91 1.28	0.97 1.02 1.38 1.15	1.04 1.25 1.38 1.08	1.13 1.12 1.13 1.10	0.98 1.03 0.84 1.01	1.21 1.14 1.21 1.14	1.05 0.90 0.86 1.20	1.05 0.90 0.86 1.20	0.82 0.83 0.68 0.72	1.03 1.03 0.56 0.35	0.82 0.83 0.68 0.72	0.83 0.86 0.69 0.45	0.86 0.86 0.54 0.43	0.86 0.86 0.54 0.43	1.16 0.70 0.62 0.92
{ " I " II " III Rain generally	0.84 0.56 0.74 0.75 0.81	0.93 1.13 1.40 1.17	1.05 1.15 3.09 1.58	0.96 1.02 1.23 1.20	1.02 0.85 1.16 1.10	0.85 0.86 0.98 0.94	1.21 1.13 1.08 1.14	0.98 0.86 0.90 0.84	1.13 1.13 1.02 1.12	1.14 1.14 0.57 0.84	1.14 1.14 0.57 0.84	1.21 1.13 0.57 0.84	1.09 1.09 0.73 0.42	1.09 1.09 0.73 0.42	0.85 0.84 0.81 0.74	0.80 0.80 0.74 0.74	0.80 0.80 0.74 0.74	0.90 0.93 0.86 0.86
{ " I " II " III Rain generally	0.82 0.65 0.73 0.75	0.96 1.15 1.39 1.08	1.15 1.75 2.68 1.57	1.03 1.61 1.58 1.47	0.99 1.23 1.19 1.11	0.93 1.11 1.06 1.05	1.17 1.11 0.96 1.12	0.94 1.11 0.71 0.97	1.12 1.12 1.06 0.87	1.09 1.09 0.81 0.79	1.09 1.09 0.81 0.79	1.09 1.09 0.81 0.79	0.55 0.57 0.44 0.44	0.55 0.57 0.44 0.44	0.63 0.56 0.37 0.46	0.88 0.81 0.46 0.59	0.88 0.81 0.46 0.59	1.05 0.81 0.50 0.59

Snow.

	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	Calms.
{ " I " II " III Snow generally	1.20 1.12 1.04 1.59 1.17	1.06 2.22 2.81 1.43	0.47 1.05 2.08 0.69	0.76 0.64 1.34 0.83	0.43 0.91 2.57 0.65	0.64 1.27 0.25 0.78	0.48 0.55 0.12 0.48	0.44 0.45 0.12 0.47	1.03 1.03 0.25 1.09	1.20 1.88 0.95 1.58	1.20 1.88 0.95 1.58	1.88 0.89 0.49 1.64	1.96 0.95 0.49 1.64	1.51 0.78 0.49 1.28	1.42 0.70 0.49 1.20	1.27 1.32 0.73 0.24	0.73 0.49 0.25 0.65
{ " I " II " III Snow generally	1.29 1.04 1.17 1.22	1.10 3.26 1.76 1.30	0.54 1.53 2.49 0.85	0.49 1.21 2.49 0.71	0.52 0.60 0.59 0.57	0.52 0.99 0.44 0.54	0.69 0.41 0.44 0.76	0.45 0.45 0.00 0.44	1.03 1.03 0.88 0.91	2.03 0.73 0.59 1.68	2.03 0.73 0.59 1.68	2.01 0.97 0.29 1.71	2.01 0.97 0.29 1.71	1.87 0.45 0.29 1.48	1.35 0.69 0.73 1.16	1.24 0.80 0.73 1.12	0.70 0.65 0.59 0.68
{ " I " II " III Snow generally	1.24 1.02 1.44 1.20	1.11 1.81 2.22 1.33	0.51 1.32 2.75 1.40	0.45 1.06 1.05 0.78	0.62 0.89 0.26 0.68	0.58 0.75 0.26 0.67	0.58 0.51 0.26 0.61	0.45 0.45 0.13 0.45	1.12 1.94 0.52 1.00	1.03 1.94 0.65 1.62	1.03 1.94 0.65 1.62	2.01 0.97 0.29 1.71	2.01 0.97 0.29 1.71	1.87 0.45 0.29 1.48	1.35 0.69 0.73 1.16	1.24 0.80 0.73 1.12	0.70 0.65 0.59 0.68

TABLE LXXXVII.

Number of days in which rain fell with its depth in inches, for each month of the years 1860, 1861, and 1862.

Number of days.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	6	7	5	11	16	14	13	14	14	15	12	3	130
1861	4	4	8	12	12	13	16	15	17	15	14	6	136
1862	5	3	8	10	8	10	15	15	9	10	11	5	118
Means for the 3 years.	5	5	7	11	12	12	15	15	13	16	12	5	128
Means for 23 years...	5	4	6	9	11	12	10	10	11	12	10	5	106

Depth in inches.

1860	0.740	1.330	0.882	1.282	1.815	2.136	4.336	3.405	1.959	1.618	2.569	1.362	23.434
1861	0.685	0.815	2.125	1.619	3.380	2.329	2.635	2.953	3.607	1.993	4.294	0.560	26.995
1862	0.115	0.180	2.560	2.235	1.427	1.007	5.344	3.483	2.344	2.684	2.205	1.945	25.529
Means for the 3 years.	0.513	0.775	1.856	1.712	2.207	1.824	4.105	3.280	2.637	2.098	3.023	1.289	25.319
Means for 21 years...	1.269	1.034	1.553	2.390	3.084	2.961	3.672	3.034	3.788	2.529	3.192	1.637	30.143

TABLE LXXXVIII.

Number of days in which snow fell with its depth in inches, for each month of the years 1860, 1861, and 1862.

Number of days.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1860	16	13	11	5	...	...	...	...	...	1	8	21	75
1861	23	17	14	4	1	...	...	...	...	1	8	8	76
1862	19	17	11	4	...	...	...	...	...	2	11	8	72
Means for the 3 years.	19	16	12	4	0	0	0	0	0	1	9	12	74
Means for 23 years...	12	12	9	3	0	0	0	0	0	2	6	13	58

Depth in inches.

1860	8.7	18.8	2.4	0.3	...	...	...	...	...	*	1.9	13.5	45.6
1861	20.6	29.7	7.1	6.9	0.5	...	...	...	...	*	3.2	6.8	74.8
1862	27.4	23.1	18.5	0.2	...	...	...	...	...	0.5	5.3	10.4	85.4
Means for the 3 years.	18.9	23.9	9.3	2.5	0.2	...	...	...	...	0.2	3.5	10.9	68.6
Means for 20 years...	14.3	18.3	9.3	2.4	0.1	...	...	...	...	0.8	3.2	14.5	62.8

* Inappreciable.

TABLE LXXXIX.

Mean monthly and annual temperatures in each of the twenty-three years, from 1841 to 1863 inclusive, with the average monthly and annual temperatures in the whole period. Also the probable variability of a single year, and of each month in a single year, together with the probable errors of the monthly and annual averages for the whole period.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean Annual Temperatures.	Differences from Average.
1841	25.6	22.4	27.7	32.2	50.5	65.6	65.0	64.4	61.3	41.6	35.0	28.7	43.92	-0.26
1842	27.9	26.9	35.8	43.1	49.1	55.6	64.7	65.7	55.7	45.1	33.3	24.7	43.96	-0.22
1843	28.7	14.5	21.3	40.9	49.1	58.4	64.5	66.4	59.1	41.8	33.5	30.0	42.35	-1.83
1844	20.2	26.0	31.3	47.5	53.6	59.9	60.0	64.3	58.6	43.3	34.9	28.2	44.48	+0.30
1845	26.5	26.0	35.4	42.1	49.6	61.0	66.2	67.9	56.0	46.4	36.8	21.1	44.58	+0.40
1846	26.7	20.4	33.1	44.0	55.5	63.3	68.0	68.4	63.6	44.6	41.3	27.5	46.36	+2.18
1847	23.3	21.5	26.2	39.2	54.4	58.4	68.0	65.1	55.6	44.0	38.6	30.1	43.70	-0.48
1848	28.7	26.6	28.6	41.3	54.1	62.9	65.5	69.2	54.2	46.3	34.5	29.1	45.08	+0.90
1849	18.5	19.5	33.5	39.0	48.0	63.2	68.4	66.3	58.2	45.3	42.6	26.5	44.09	-0.09
1850	29.7	26.0	29.8	37.9	47.6	64.3	68.9	66.8	56.5	45.4	38.8	21.7	44.45	+0.27
1851	25.5	27.6	32.4	41.3	51.3	59.2	65.0	63.6	60.0	47.4	32.9	21.5	43.98	-0.20
1852	18.4	23.4	27.7	38.2	51.4	60.8	66.8	65.9	57.5	48.0	36.0	31.9	43.84	-0.34
1853	22.9	24.2	30.8	41.9	50.8	65.4	65.5	68.7	58.9	44.5	38.7	25.4	44.80	+1.62
1854	23.5	21.2	30.8	41.1	52.1	64.1	72.4	68.1	61.1	49.5	36.9	21.9	45.23	+1.05
1855	25.9	15.6	28.6	42.5	53.0	59.9	67.9	64.1	59.6	45.4	38.6	26.9	43.98	-0.20
1856	16.0	15.8	23.2	42.3	50.4	62.1	69.8	63.6	57.2	45.4	37.4	22.9	42.18	-2.00
1857	12.7	28.7	28.0	35.4	48.8	56.9	67.7	65.4	58.7	45.5	33.6	31.9	42.75	-1.43
1858	30.0	17.1	28.6	41.5	48.8	66.1	67.8	67.7	59.2	48.8	34.2	27.4	44.76	+0.58
1859	26.4	26.2	36.5	39.6	55.1	58.2	66.8	66.7	55.2	43.0	38.9	17.9	44.21	+0.03
1860	23.3	23.0	34.6	39.6	55.5	63.1	63.8	64.5	55.4	47.3	38.0	24.0	44.34	+0.16
1861	19.8	26.2	27.1	42.1	47.4	61.2	65.3	65.5	59.1	48.8	37.2	31.2	44.24	+0.06
1862	21.7	22.6	28.9	39.6	52.1	60.5	66.6	67.7	59.7	48.7	35.6	28.8	44.37	+0.19
1863	28.0	22.6	26.0	42.1	54.2	60.1	67.5	66.6	55.9	46.0	39.1	27.0	44.59	+0.41
Means 1841-1863	23.91	22.78	29.82	40.93	51.41	61.31	66.87	66.20	58.10	45.74	36.80	26.35	44.18	
Normal temperatures in lat 43° 40' N.	32.8	34.7	40.1	50.2	58.1	64.6	68.7	68.5	61.5	53.8	43.2	36.0	51.0	
Probable variabilities in a single year.	3.10	2.76	2.65	1.64	1.77	1.92	1.33	1.14	1.56	1.48	1.76	2.59	0.61	
Probable errors of general averages.	0.65	0.58	0.55	0.34	0.37	0.40	0.28	0.24	0.33	0.31	0.37	0.54	0.13	
Means 1841-1852	24.97	23.40	30.23	41.14	51.18	61.05	66.41	66.16	58.02	44.93	36.51	26.75	44.23	

TABLE XC.

Mean monthly and annual barometric pressures in each of the twenty-three years from 1841 to 1863 inclusive, with the average monthly and annual pressures in the whole period. Also the probable variability in a single year, and of each month in a single year, together with the probable errors of the monthly and annual averages for the whole period.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1841	29.6636	29.4918	29.6640	29.6234	29.5462	29.5428	29.6171	29.6977	29.6035	29.6440	29.5678	29.5970	29.6040
1842	.5091	.5477	.6343	.5551	.5888	.5856	.6567	.7100	.6594	.6397	.6094	.6504	.6122
1843	.5961	.5566	.5580	.5984	.6149	.5329	.6203	.6799	.6911	.5425	.6682	.6659	.6120
1844	.6118	.6004	.6526	.7874	.5496	.6092	.6368	.5289	.7307	.6356	.6110	.5486	.6177
1845	.6244	.5748	.5922	.5991	.6355	.5976	.6082	.6320	.6011	.7941	.5084	.6918	.6099
1846	.6172	.6620	.6026	.7017	.5067	.5939	.5847	.6382	.6237	.6960	.6714	.6424	.6284
1847	.5964	.5202	.6756	.6731	.5837	.5619	.6313	.6360	.6099	.6753	.6851	.6567	.6253
1848	.6657	.6084	.6470	.7310	.4961	.5435	.6715	.6412	.5874	.5999	.6555	.6770	.6188
1849	.8046	.7529	.7133	.5814	.6717	.6238	.6826	.6194	.6820	.6038	.5886	.6799	.6670
1850	.6869	.4945	.6004	.5653	.5551	.6409	.5878	.6006	.6233	.5977	.6565	.6756	.6154
1851	.6106	.7562	.6570	.5991	.6288	.6003	.5537	.6691	.7586	.5998	.6347	.6668	.6446
1852	.5756	.5281	.5910	.4147	.6187	.5203	.6104	.6658	.7013	.6613	.5761	.5995	.5886
1853	.7159	.5856	.5551	.5672	.5965	.6155	.6538	.5894	.6419	.6599	.7948	.6001	.6306
1854	.6105	.6979	.5264	.6362	.5647	.5494	.6389	.6464	.7006	.6979	.4419	.5890	.6083
1855	.6433	.6280	.5147	.6522	.6499	.5114	.6097	.6517	.7209	.5538	.6670	.7037	.6255
1856	.6734	.4915	.5610	.5773	.5808	.5464	.5898	.5195	.5999	.7093	.6448	.7130	.6006
1857	.7400	.7393	.5975	.5283	.6339	.4247	.5869	.5930	.7118	.6695	.5265	.6205	.6060
1858	.6791	.6635	.6215	.4970	.5824	.6037	.6038	.6181	.6497	.6837	.6294	.6960	.6273
1859	.6808	.6353	.4143	.5333	.6584	.6170	.6469	.5977	.6684	.6170	.6773	.7109	.6215
1860	.6467	.6356	.5129	.5758	.5645	.4958	.5626	.5812	.6731	.6735	.5253	.6683	.5929
1861	.6555	.5473	.6224	.5623	.5440	.5678	.5491	.6517	.6082	.6215	.5398	.7478	.6015
1862	.7312	.6109	.5654	.7241	.5881	.5622	.5460	.6148	.6828	.6212	.6391	.6795	.6254
1863	.6504	.7954	.6667	.6436	.6166	.5503	.5949	.6440	.7322	.6996	.5584	.6992	.6542
Means 1841-1863.	.6516	.6254	.5947	.5990	.5858	.5659	.5975	.6272	.6018	.6473	.6120	.6600	.6190
Probable variabilities in a single year.	0.0418	0.0562	0.0406	0.0520	0.0314	0.0331	0.0292	0.0316	0.0358	0.0374	0.0510	0.0325	0.0125
Probable errors of general averages.	0.0087	0.0117	0.0097	0.0108	0.0066	0.0069	0.0061	0.0066	0.0076	0.0078	0.0106	0.0066	0.0026

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